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1828

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THE LONDON

MEDICAL AND PHYSICAL

JOURNAL.

CONDUCTED BY

SAMUEL FOTHERGILL, M.D.

PHYSICIAN EXTRAORDINARY TO HIS ROYAL HIGHNESS THE DUKE OF KENT; PHYSICIAN TO THE ASYLUM FOR FEMALE ORPHANS; AND TO THE WESTMINSTER GENERAL, AND THE WESTERN, DISPENSARIES.

VOL. XXXIII.

FROM JANUARY TO JUNE, 1815.

Et quoniam variant morbi, variabimus artes;
Mille mali species, mille salutis erunt.

LONDON:

PRINTED FOR THE PROPRIETORS, BY J. ADLARD, 23, BARTHOLOMEW-CLOSE, AND 39, DUKE-STREET, SMITHFIELD;

AND PUBLISHED BY J. SOUTER, NO. 1, PATERNOSTER-ROW.

1815.

[Entered at Stationers' Hall.]

THE

Medical and Physical Journal.

1 OF VOL. XXXIII.] JANUARY, 1815. [NO. 191.

" For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable series."—RUSH.

ADDRESS.

THE Proprietors of the MEDICAL AND PHYSICAL JOURNAL *wish not to appear ungrateful for the encouragement they have received by its increased circulation. But the first tribute of gratitude is due to their numerous correspondents, whose contributions are now so considerable as to require some management in showing impartiality to each. They have one remark to make—that communications with the name of the writer will always claim a priority, and that even these will be distinguished as the subject may be of a temporary or transient nature. By attention to the latter, their Journal has now become a register for events which are partly forgotten, by fresh ones which arise, more interesting from their novelty. All, however, are important in a science which can only be perfected by constant observation, and by an accumulation of such facts as are with difficulty preserved, excepting in monthly archives, because the interest that attends them is often lost by a longer delay.*

The editorship has never been considered a department in which economy should have any influence. To select good articles, to arrange them carefully, and even to superintend the press, is not the province of the proprietors; but, by taking the impartial advice of the most respectable part of the London Faculty, they cannot be long mistaken, and as often as they are, the same friendly assistance is always ready to direct them. To preserve a necessary uniformity in their Journal, they have been advised for the present to insert the name of only a single Editor, who has a discretionary power to avail himself of whatever assistance he may require the various departments.

Some of our readers have remarked, that the Journal is less complete as a register, by the partial omission of some articles in a periodical work, which it was formerly our custom to compress into our review. We were often complimented for our impartiality to a rival Journal, and, if we find it the general wish of our readers, shall resume our former plan. It may not be amiss on this occasion to repeat, that the Editorial has always been distinct from the Reviewing Department. Though the Editors have not shrunk from a certain degree of responsibility in whatever has appeared under their name, yet it is with pleasure they remark, that complaints of unjust severity have never, that they know of, been imputed to this Journal. They have now authority to add, that whenever an author or his friends think his work unfairly treated, his answer shall always be inserted, without any remarks which may lessen the spirit of the defence, or interrupt the attention of the reader.

For the Medical and Physical Journal.

Observations on the Case of W. O.; by R. N. STARR, Surgeon, of Barnsley, Yorkshire.

ON perusing your Journal for this month, I observed a communication signed "W. O." respecting a syphilitic or supposed syphilitic complaint he has laboured under for some time. It appears the gentleman had contracted chancres, which were succeeded by buboes; mercury had been freely used, without affecting the system; in the mean time, the chancres healed, and after a lapse of three years, the ulcers in the groin also healed. It appears after this he was affected with nocturnal pains in the arms, thighs, and legs, more particularly of the tibia, with nodes on the latter. From these symptoms, I am inclined to coincide with the opinion of the medical gentleman who attended him in his passage to England, that the disease is evidently secondary syphilis, and most likely to be relieved by mercury. I have seen several cases, the symptoms of which resembled those of this gentleman, and which all gave way to the use of mercury. I should, therefore, recommend him to consult some eminent surgeon, who will, no doubt, allow the mercury a fair trial, which, in my opinion, it has not yet had.

R. N. STARR,
Late Assistant-Surgeon 48th Regt.

Barnsley, Yorkshire; Dec. 5, 1814.

For the Medical and Physical Journal.

Remarks upon the Nature of Gout, and the Action of Remedies in that Disease; by Mr. R. WALKER, of Oxford.

PERCEIVING that the subject of Gout is at this time much and zealously agitated, I beg leave to anticipate, in some degree, my intended paper on this subject by the following observations.

With respect to gout, I am enabled by the most convincing experience to assert, that I have ascertained to demonstration the following facts, viz. 1st, that it consists in a morbid tumour, or acrimony generated in the habit. 2dly, That the method of cure, or prevention, consists either in cutting off the source of the disease, or constantly carrying it off as fast as generated, by a convenient channel or outlet. 3dly, That, though much may be done towards cutting off or diminishing the disposition for generating this disease, by medicine and regimen, yet these means, separately or conjointly, act very imperfectly and partially in obviating or carrying off the humour or matter of gout; and, moreover, weaken and debilitate the habit of body.

4thly,

4thly, That no drug or medicine in nature possesses the power of acting specifically upon gout; but that the effects produced depend merely and entirely upon some increased secretion occasioned by such medicine; and likewise incidentally and transiently by a temporary disturbance or derangement in the habit, thus putting aside as it were, or suspending, for the time present, an impending or commenced paroxysm of gout. 5thly, That, whatever drug or composition possesses the power of effecting the required secretions, together with a sedative or anodyne quality, will be a remedy equal in efficacy to the eau medicinale, or any imitation of it. The secretions I principally allude to, are, primarily, by the skin, or perspiration; and, secondarily, by the bowels.* 6thly, That the means I have pointed out, or alluded to, is an effectual and complete remedy, inasmuch as it completely obviates any future attack of gout; or if, in some instances, it should fail in this, it renders such attacks much less frequent, and, beyond all comparison, milder. 7thly, That, in order to produce the full effect to be expected from this remedy, and to regulate it so as to be free from any annoyance to the patient, requires an additional knowledge, not ordinarily known to any professional person, the particular direction for which I shall give hereafter. 8thly and lastly, That it is much to be regretted that the same good effects are not to be produced by occasionally swallowing a medicine; but which, long and adequate experience has convinced me, is never to be expected, such a remedy most probably not existing in nature.

With respect to the data upon which this opinion is founded, I shall have occasion to explain hereafter, in a paper entitled "On the Nature of Diseases, and the extent of power or efficacy of Medicine over them," in which I shall attempt to define or show the actual boundary of the power of medicine upon diseases—in short, in other words, to give the *ne plus ultra* of the medical art, founded upon fact, and reconcileable by reason.

I have at this time two patients, in whom this plan of treatment has been pursued,—one in whom the gouty diathesis showed itself most decidedly at a little past the age of thirty, by a repetition, during several years, of most violent

* It may be said, and I am ready to admit, that the *eau medicinale*, or any medicine possessing similar powers, might act successfully by its strong sedative powers alone, as we know happens from a somewhat similar cause, by sudden danger, alarms, &c. but what will be the state of the patient if a system of this kind is to be persevered in.

attacks of *genuine gout*. About the age of thirty-five, the remedy was applied, and most attentively managed: the paroxysms became immediately, or from that time, less frequent, and milder; and for several years past have entirely left him, except an incidental slight attack, of short duration, in one foot, scarcely occasioning limping, and this perhaps to be accounted for from inattention.

He lives, with respect to regimen, &c. in his ordinary way, which is by no means of a restrictive nature, and enjoys the most perfect health in every respect.

The other person has lately commenced the same plan, with a most striking and remarkable effect of a similar nature.

I have witnessed the effect of the eau medicinale, and, without adverting to the violent derangement it produces in the constitution of some persons, certainly should not recommend or administer it to any person, unless with a view of putting aside for the time an impending paroxysm, or diminishing the violence of it if commenced; and I well know that even this effect from it is precarious, and by no means to be relied on; and, moreover, I have known it exhibited with extraordinary precaution, and according to the direction of the proprietor, produce subsequent debility and derangement of the constitution to such a degree, as to be long remembered and complained of by the persons who took it.

Whether the humour or essence of gout be of a peculiar nature, or *sui generis*, as we term it, or whether it be analogous to that species of humour ordinarily denominated scorbutic, &c. I do not know, nor is it material; but this I know, that an impending or commenced fit of gout is occasionally completely obviated, or carried off, by a determination of the humour to another part, commonly the surface, resembling a *scorbutic affection*, so called, and sometimes in the character of *true erysipelas*; and I well know, likewise, that the means I have alluded to, is a remedy both for *scorbutic acrimony* (to which, when it exists in the habit in a violent or virulent degree, I have assigned the name of *scorbutic scrophula**) and *gout*.

Could the same thing be effected by a *medicine*, it would be an important and valuable discovery indeed, but this I may venture to declare is never to be expected.

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* This constitutional affection, though ordinarily considered of the same nature with *king's-evil*, or *genuine scrophula*, differs from that so much as to require a very different mode of treatment, and for which the plan above recommended is not applicable.

Here,

Here then, in effect, is a safe and certain remedy for gout, hitherto one of the great *opprobria medicorum;* with respect to the application of it, it rests with the patient to judge whether the remedy is more tolerable than the disease.

Oxford; RICHARD WALKER.
Nov. 4th, 1814.

For the Medical and Physical Journal.

Cursory Observations on the Treatment of Yellow Fever, in answer to the Queries of the Editors; by Mr. JOHN M'LEOD.

THE symptoms of the yellow fever have been so often and so ably described, that it may be unnecessary to go over that ground. The various designations it has received—the Bulam, the West India, Philadelphia, or Mediterranean fever, are, in my opinion, founded in error, for its origin can be traced to no particular place. It seems, in fact, to be the ardent bilious fever of any warm country whatever, and, as far as my observation extends, its character is the same, whether in Africa, America, or the Mediterranean, varying a little only in degree of severity, according to local circumstances, or peculiarity of constitution.

In hot climates, there is an unusual secretion of bile, which, being retained (perhaps from costiveness), becomes acrid, and this, added very often to intemperance, fatigue, &c. excites general febrile action, which, if not promptly cut short by *timely* remedies, commonly proceed with great rapidity to a fatal termination. The stomach and bowels, irritated by their acrimonious corrosive contents, advance (as appears by dissection) quickly from inflammation to mortification, a state which is generally, but not always, denoted by hiccup and black vomiting, the last and mortal symptoms.

Having always had this view of the disease, my treatment of it has been naturally directed to the immediate removal of its exciting cause, by clearing out the primæ viæ by any purgative which the stomach best retains, and which will act most powerfully and speedily, and by enemas if requisite, subduing at the same time the increased action of the sanguiferous system, by venesection and the cold affusion.

It may be right to state here, that whilst I was in the West Indies in 1804, 5, 6, and 7, bleeding was not in vogue. I did not practise it, nor was it necessary, as, before I joined, the men had been seasoned for a year or two, a state of body which neither will bear, nor indeed requires, this evacuation. Emetics were never thought of, from the great determination

they

they occasioned to the head, and from the commotion they excited in the stomach, already too highly irritated.

Purgatives, with plentiful dilution, and the cold bath, in general sufficed; but I am clearly of opinion, that in men newly arrived from cold climates, venesection ought to be freely resorted to, in addition to the other remedies, on the first attack of this fever.

I have had frequent opportunities of observing this same disease in the Mediterranean, more especially in a line-of-battle ship, where above eighty cases occurred within a very short period, at the time it was prevalent in the fleet, in the summer of 1811, who all, except one or two, recovered by the repeated use of purgatives, the cold affusion, and bleeding, in those whose habits seemed to indicate it; but I must again remark, that a great proportion of our men in this ship (the Warspite) were habituated to warm climates, which rendered bleeding less essentially necessary than it otherwise would have been. During last summer, we left the Garonne in the same ship, with upwards of one thousand men on board, including the military, and proceeded to Canada. On the passage, we lost two of our men, who, from their situations (purser's steward and taylor), had constant access to spirits, and were worn out by habitual intemperance; but at Quebec, where the danger was greatest, from the excessive heat, and opportunities of being irregular on shore, we did not lose a man, although the febrile cases were very numerous. Here I had recourse to venesection much more freely than heretofore, for I had observed in some cases in the Mediterranean, that great depletion in this way was not followed by that debility which is so much feared; and also, the men, from having been two years on the home station, were better fed, and more plethoric, than when accustomed to warm latitudes. The recoveries were here astonishingly quick, even in these cases which had, at the first attack, every promise of being very violent. On our return homewards in September, we were frequently without an individual on the sick list. At the onset of these cases, it was usual to take away from 30 to 40 and 50 ounces of blood the first day, carefully attending at the same time to keep the bowels freely open.

Upon the whole, I think this fever may be combated with as great a probability of success as any disease I am acquainted with, provided the constitution is otherwise unimpaired, and, above all, where timely application is made for relief, merely by the judicious and prompt use of the three grand remedies, viz. venesection liberally in all new comers, and where the patient is not reduced by the climate; by the cold affusion,

agreea

agreeable to the rules established for its use; and by repeated purgatives in all cases without exception.

All this, however, must be done early, to ensure success; and a medical man derives great assistance in this respect from the good discipline of the ship. In such ships I have, in general, had the happiness to serve. In La Pique, for instance, in the West Indies, which was in unexampled order, the men were examined by the officers before breakfast in the morning, and at quarters again in the evening—any man who seemed heavy or indisposed, was immediately noticed and taken care of. No man in a state of intoxication did I ever permit to sleep with his stomach loaded with new rum; and to all these circumstances I attribute the extraordinary state of health we enjoyed, a very few individuals only dying of this fever in nearly three years, two of whom, from straggling on shore, had not the benefit of early attention.

2, *Villiers-street, Strand,* JOHN M'LEOD.
Dec. 5, 1814.

For the Medical and Physical Journal.

Case of the simultaneous Existence of Eight Tape-Worms in the same Individual; by M. BROUSSAIS, First Physician to the Army in Spain.

A SERJEANT was received into the Military Hospital in the month of November, 1813. He had been attacked with a tertian fever, which had already relapsed several times. He was pale, and slightly anasarcous. His appetite was good; but he had diarrhœa, and several times voided considerable portions of tape-worm.

As bark internally administered disagreed with him, Mr. Martel, under whose care he then was, undertook to destroy the fever by the sole employment of frictions, with alcoholic tincture. This remedy, which I have myself often employed with success in cases where the internal use of bark could not be borne, speedily cured the fever.

Notwithstanding the patient was freed from the fever, he remained weak and anasarcous, with cough, and oppression about his chest. He complained of a sense of painful weakness in the inward parts of the abdomen, which he ascribed to the worm.

At the end of five or six days, he suddenly complained of an insupportable coldness, which nothing could abate, and which threatened a return of the fever; but, instead of the hot fit, an œdematous and painful swelling of the right arm suddenly arose, the swelling of which increased to the greatest possible

possible degree in the course of the night. In the morning, we found the patient trembling, his respiration laborious, with the expression of death in his countenance. He expired in the course of the day.

The body was opened. The lungs were free from adhesions, but they were filled with a sero-mucous liquid. In the abdomen, a quantity of yellow serum was found. The mucous membrane of the intestines was diseased throughout its whole extent, appeared of a light red colour, and in some isolated spots disorganized and thickened. In the jejunum and ilium we discovered eight tæniæ. They were separated, and at some distance from each other. One alone was found in the colon. Each was curled up into a ball. We measured the only three that could be disentangled. They were from ten to fourteen feet in length, and were dead.

For the Medical and Physical Journal.

Case of Small Pieces of Bone discharged from Ulcers in the Sternum of a Child; by J. MITCHELL, M.D.

SOME time in July, a weaver brought his child, a female, between six and seven years of age, for my advice and inspection. In examining the child's case, I observed a large cicatrix on the skin over the sternum, and at the end of one of the ribs that joined to it, on the right side, a round white-edged ulcer, the orifice about the size of a small hazel-nut; below the breast, on the same side, there was another ulcerous orifice, of the same size and appearance, at the fore part of one of the true ribs.

Supposing the child's complaint to be scrophulous, I inquired what effect the ulcers had upon the girl's health: he made answer that she appeared hearty; she followed her work of dyeing cotton for the spinners; when from her work, she ran about and played with other children, and had a good appetite for her victuals; but that pieces of bones were protruding from the ulcers, two or three in the fortnight. He opened a paper, and showed me more than a dozen of pieces, all of ribs, some of which were above three inches long, having curvatures, but without any periostium. He showed me also a square bone, which he said came from the mark on her breast: it was the entire middle portion of the sternum, near two inches long, and a quarter of an inch thick. All the pieces had an old look, as if they had been gathered from some burying ground. I asked if there were any discharge of matter from the ulcers? He replied, there was little or none, unless when the pieces were shooting out, which

which he said was surprising to behold, for they came out by degrees without any pain, as if coming from a sheath. The ulcers were kept without any dressing. I pressed with my finger upon the cicatrix over the sternum, but there was no deficiency of bone to my feeling; along the course of the ribs, where the ulcers were, all seemed firm to the pressure. I told her father, that, according to my judgment, nothing could be done for his child; that he must wait till nature and her growth might make a change in her favour. About six weeks since, he overtook me in the street, and said his child had many pieces of bone discharged from her breast since he last had seen me, and that she continued in other respects in good health.

If the above case be worthy a place in your valuable Journal, it is at your service. I would not have troubled you had it not appeared to me to be a new disease of the bones. Perhaps other practitioners may have seen similar cases: if they have, it is more than I have ever heard. Most likely it originates from scrophulous affection of the periostium. JOHN MITCHELL, M.D.

Mile's End, near Stockport;
Oct. 10, 1814.

For the Medical and Physical Journal.

Account of a remarkable Hæmorrhagic Disposition, existing in many Individuals of the same Family; by Dr. JOHN HAY, of Reading, Fellow of the Massachusetts Medical Society.

THE first person of whom I have any account, as being subject to the remarkable predisposition to be described, was Mr. Oliver Appleton of Ipswich, about one hundred years since. This man was subject from his youth to profuse bleeding from slight causes. When advanced in life, by a long confinement in bed the skin was worn from his hips, and an hæmorrhage taking place from that part and from the urethra, occasioned his death. He left three daughters, two of whom married into a family by the name of Swain, in Reading. Dr. Thomas Swain, who married the eldest, had by her two sons and five daughters. The two sons both bled to death. During their lives they were liable to violent hæmorrhages from the smallest scratch or injury, the bleeding usually coming on about a week after they were hurt.

Dr. Oliver Swain, July 17, 1770, met with an injury from the kick of a horse, which laid the leg open to the bone, three inches in length. He bled profusely for some hours, suffering

extreme pain. After this, there was no farther effusion of blood till Wednesday 21st, at twelve, at which time the part began, after dressing, to bleed a little. On Monday, 26th, it was dressed again, but bled a little. Tuesday evening, 27th, bled somewhat. But on Wednesday evening, at eight o'clock, it began to bleed fast, and continued to do so two or three hours. On Thursday, 29th, after dressing, bled but little; at eight the hæmorrhage came on again, attended with great pain, but went off soon. Friday, 30th, small hæmorrhage, all the fore part of the day, with extreme pain. At twelve, began to bleed very fast, and continued bleeding three or four hours; after which time he grew delirious, and remained so till evening, then was more rational, but threatened with fever, notwithstanding his great loss of blood. 31st, in the morning, more comfortable for a short time; he soon, however, lost his senses, and about noon his speech, and in the evening was thought dying. August 1st, he lay in a restless situation, senseless and speechless, a small bleeding attending. At evening, the bleeding was more profuse, but stopped after dressing. Monday, 2d, lay all day, without speaking, until night; he then spoke a few words. Tuesday, 3d, more comfortable, rational, and had his speech, though somewhat bewildered. Dr. Amos Putnam and Dr. Thomas Swain, jun. dressed his wound, and found the tibia bare for the size of a cent, but in a good way. Wednesday, 4th, much worse in the morning; in the afternoon, delirious and stupid. Thursday, 5th, very low the fore part of the day, had poultices put to his feet; in the afternoon, he had a return of his senses, and was more comfortable than he had been for some days. Friday, 6th, very ill in the morning, greatly distressed for breath. Between eight and nine o'clock, grew much worse, and continued in the greatest distress of body, though somewhat composed in mind, until about one o'clock, when he died, aged 33 years.

Dr. Thomas Swain, jun. having received a small wound on his finger, with a pen-knife, the hæmorrhage reduced him almost to death. Soon after he became able to ride out, he was attacked with bleeding at his lungs, that closed the scene at the age of thirty.

Gen. Benjamin Brown married the oldest daughter of Thomas Swain, jun. had by her three sons, two of them bleeders, (for this is the distinction they go by,) one of them bled to death at the age of fifteen years; the other, now about the age of fifty-four, is living in this neighbourhood. He informed me, a few days since, that he bruised his right hand the last winter, 1810; and, although he broke no skin, the blood some time after burst from the bruise, and continued to flow for a fortnight. He supposed he lost two quarts of blood. He has

three

three daughters, and thinks they are in the proper line for bleeders. Age does not exempt them from this disposition. Two of the daughters married into the family of the Nortons; one of them had three bleeders, the other had two; one of these bled to death, the other was drowned. Mr. John Bachilor married a daughter of Dr. Thomas Swain, sen. who had three bleeders, two of whom are dead; the one that is living bled profusely the last winter, 1810. The children of bleeders are never subject to this disposition, but their grandsons by their daughters are.

Dr. Oliver Swain has three sons that are living with us, none of whom are subject to bleeding. Dr. Oliver Swain left one daughter, married to Jeremiah Hartshorn, my next-door neighbour, who has three bleeders; the oldest of them, from a small scratch by a plaything, when nine months old, bled nine days, notwithstanding the application of styptics, astringents, and bark, with preparations of nitre, which were of no avail. The second son has also bled from time to time.

May 5th, 1810, the third son, who is about eight years of age, received a small wound upon two fingers of the left hand, hæmorrhage occurred from one of them only. It has been observed always to be the case, that, though many wounds are made, only one bleeds, and the bleeding continues till nothing but a serous fluid issues from it. This patient bled for four days, and the more he bled, the pulse was found to grow more rapid. The countenance was pale and ghastly.

Dr. John Otto has given an account, which I have consulted, of an hæmorrhagic disposition existing in two families, of the names of Smith and Shepherd, living in the vicinity of Plymouth, New-Hampshire. A person by the name of Appleton, married a Smith of Haverhill, supposed to be the Mrs. Smith mentioned by Dr. Otto.

I have attended three or four persons of this hæmorrhagic disposition, and have found no article answer better than the sulphate of soda, used as follows:

℞. Sulphat. Sodæ. unciam unam.

This is to be administered for two or three days in succession, and generally stops the hæmorrhage. A more frequent repetition of the medicine is certain of producing the effect. This practice was very beneficial in the case of Mr. Hartshorn's child, a constipation of the bowels being a never failing evil among them, and vomiting very harassing.

Thomas Swain, junior, left one daughter and one son; the daughter married Mr. Parker, of Reading. She had two bleeders. One of them died with an hæmorrhage about a year since. The other bled profusely the last winter, 1810. Benjamin Swain married the second daughter of Oliver Appleton.

She had one bleeder only, although they had two sons and one daughter. The bleeder died with the throat distemper. Mrs. Whipple had but one son, of a dark complexion, which is not usual at all with those who are subject to this indisposition, for they are of a florid countenance, are remarkably healthy, and extremely irascible.

Dr. Rush has been consulted twice in cases similar to these, in the course of his practice. The first time by a family in York, and the other by one in Northampton county. A. B. of the state of Maryland, has had six sons; four of them died with the loss of blood from the most trifling scratches or bruises. A small pebble fell on the fore finger nail of one of these children when at play, being one or two years old; in a short time the blood issued from the end of the finger until he died. The physicians could not stop the bleeding. Two of the brothers are now suffering from the same hæmorrhagic disposition; they bleed profusely from the slightest scratch; and the father looks every day for an accident that will destroy them. Ligatures have been applied above the wounds, and a bladder secured over the parts, by the direction of Dr. Brattle of Cambridge, in a former bleeding of Dr. Oliver Swain; the blood has burst out above the ligatures, which has caused extreme distress. It has been observed of these bleeders, that, although they may not fall a sacrifice to the hæmorrhage, their lives are of short continuance. Nathaniel Brown, now living in this town, is said to be the oldest person of any of the bleeders since Mr. Oliver Appleton. My oldest son, Jonathan P. Hay, married a descendant of Mr. Appleton, and has eight children by her; three sons, the youngest about eight years old, and has the exact complexion of the bleeders, but as yet has not bled more than common. I am apprehensive that he will exhibit the hæmorrhagic disposition. The great grandmother of Mr. Hartshorn's children pronounced them bleeders in their infancy; her predictions, with regard to her bleeding descendants, have always been verified.—*New-England Journal.*

For the Medical and Physical Journal.

Case of Hydrophobia, in which Blood-letting was Unsuccessful; by Mr. R. BELLINGHAM.

THE attention and the hopes of the medical world have been of late so strongly excited by the publications of Dr. Shoolbred on the subject of Hydrophobia, that it would be a positive dereliction of duty to withhold the communication of the following case of that terrible and intractable disease. It would have afforded, however, much more satisfaction

faction to have been able to support the practice which Dr. S. has recommended, by the publication of an instance of its successful employment, than it can do to lessen its claims to our confidence by an example of its failure. As far as a single case is to be dwelt upon, (and happily an accumulation of facts upon this subject never falls within the practice of any one,) this case deserves to be recorded, inasmuch as it will appear that the system of depletion had the fairest and the fullest trial.

William Percival, aged three years and a half, a child possessing unusual quickness and intelligence, was bitten on the 13th of October, in the inside of the upper lip, by a dog, who had betrayed no previous symptoms of madness, though suspected of having been bitten some time before by another dog in a rabid state. The child was immediately brought by his father to Mr. Holland, surgeon, at Market Deeping, under whose care he afterwards remained. In conjunction with Mr. Holland, I attended the patient in the sequel, and at his request and with his assistance I made minutes of the case, and now present them to the public. Being furnished by him with the particulars antecedent to the accession of the hydrophobic symptoms, as the wound was slight and superficial, being rather an abrasion of the delicate cuticle of the part, than a laceration of its substance; and as there was no proof of the rabid state of the animal by whom it was inflicted, Mr. H., supported by the opinion of another surgeon, who happened to be present, applied the potassa fusa freely to the part, so as to produce extensive sloughing. This application was occasionally repeated during the ensuing month, so as to occasion successive sloughs, and the child remained in perfect health to the 16th of November.

About eight o'clock on the morning of the 17th, the father came to Mr. H. in great alarm for the safety of his child. At nine o'clock, when he first visited him, we had the following account: that the child had betrayed some marks of indisposition the evening before, had been fretful, complained of headache, which was attributed to a fall he received the day before, by which one eye was considerably bruised; that he passed a restless night, with general symptoms of fever; but no particular alarm was excited till about seven o'clock, when, in attempting to take some tea, he was observed to have some difficulty in deglutition, and to attempt it with much reluctance. The symptoms were now as follow: the child appeared dull and listless, the eyes were heavy, the pulse small and about 120 in the minute, the tongue moist but covered with a brownish fur, the bowels regular.

regular. When questioned as to the seat of pain, he pointed constantly to the throat, about the thyroid cartilage, and occasionally to the head. On being offered a little gruel, he refused; but, with some persuasion, and not without some effort, he swallowed about a spoonful; and evidently, both before and at the moment of swallowing, with a spasmodic action of the muscles of deglutition, though not severe. A vein of the arm was opened, and suffered to bleed by a free orifice *ad deliquium;* the quantity taken away was eleven ounces; the pulse immediately sunk to 60; a warm bath was ordered to be in readiness, but the prostration remained so great that its employment was postponed.

℞ Hydr. Submur. Pulv. Antim. āā gr. j.
Pulv. Jalapæ gr. ij. Misce fiat pulvis 2da.
quâque horâ sumendus.

Half past three, p. m. our visit was repeated. He had taken four powders without effect; had constantly refused either food or drink; the spasms had but little increased in frequency or violence; pulse 140, and fuller; the blood exhibited no inflammatory appearances. A bason of water being brought, the patient was desired to immerse his hand; this he attempted, but shrunk back before it touched the water with much agitation. On his hand being forced into it, the organs of deglutition were evidently much affected; the wounded part shewed no altered or unnatural appearance. No evacuation having been procured, enemas were ordered to be injected, containing Magnes. Sulphatis et Ol. Ricini āā ℥ss. Continuentur Pulveres.

Half past twelve (midnight).—Had been very restless for about three hours, but was now quiet; the attendants had more than once thought him expiring; pulse 144, and much fuller. Some water was shewn to him in a glass, from which he was urged to drink, but as usual refused; the agitation of it with a spoon, though removed entirely from his sight, evidently affected him. The powders had not yet acted, and the enemas had been neglected, but one was now immediately employed. The bandage was removed from the arm, and eight ounces of blood taken away: this flowed with the greatest force and freedom, without the application of any ligature above the orifice in the vein. The arterial action at this time seemed to be very great. He still referred his uneasiness entirely to the throat and head, but seemed perfectly easy about the stomach, and evinced no tenderness on pressure, though upon this point he was repeatedly interrogated, and examined by the hand. After this bleeding he was for the space of a minute violently and univer-

fully convulsed, but, on being returned to his bed, expressed himself perfectly free from pain.

℞ Hydr. Submur. Pulv. Antim. āā gr. j.
Pulv. Opii gr. iii. Misce fiat pulvis tertia quâque horâ sumendus.

Pulse at the time of leaving him 120. The glyster to be repeated in two hours, if required. The urine was pale in colour and deposited a whitish sediment. The glyster operated briskly in less than an hour, and he remained more tranquil till five o'clock, when the spasms became more violent and general, and returned in more rapid succession till nine, when, in a severe convulsive struggle, he expired. Two of the powders had been swallowed with great eagerness, though with increased difficulty, but without procuring any rest. His senses remained perfect to the last moment. No discharge of saliva was observed, nor were the organs of respiration particularly affected.

Dr. Skrimshire, of Peterborough, was sent for, but his arrival was too late. By him, as well as subsequently by Mr. Holland and myself, every persuasive argument was used, in order to obtain permission to inspect the body; but the prejudices of the friends could not possibly be surmounted, and I very much regret that in this respect the narration of the case is incomplete. How far the appearances on dissection would have tended in this case to establish or refute the identity, or at least the analogy, between this disease and Gastritis, it is impossible to determine. In the rapid progress of the case, however, this point was not lost sight of; and, as far as the most attentive survey of the symptoms would enable me to form a conclusion, that conclusion would be adverse to such a supposition, and for the following reasons:—1st. There was never any reference of pain to the region of the stomach, though repeatedly questioned upon that point. 2dly. There was no tenderness on pressure, though examined in the most cautious manner. 3dly. The fluids and medicines which he swallowed were never rejected, nor was there even a disposition to sickness. 4thly. There was not that peculiar cast of features, that look of anxiety and anguish, which characterises Gastritis; his countenance had more of listlessness than anxiety. I have omitted to mention in its proper place, that the second portion of blood shewed no inflammatory characters, though its crassamentum had decidedly more tenacity than the first. It is worthy of remark, that after the first copious bleeding, for I consider the detraction of eleven ounces from a patient of that age as copious, the pulse increased considerably both in frequency and strength. The temperature of the skin

was

was never much beyond its proper standard. Every one who takes the trouble of perusing this case, will of course form his own conclusions; nor would I presume, or even wish, to direct or influence them; for myself I confess, though I should be far from sanguine as to the issue, should a similar case occur within my observation, yet with the same increased action of the arterial system, the same marks of a tendency to inflammation, I should still be disposed to say, "Melius est anceps remedium experiri quam nullum." Of the powers of mercury, either prophylactic or curative, I should entertain much doubt; I should even suspect it of adding to rather than allaying the morbid irritability of the system; but it may, I think, be made a question, whether the liberal employment of opium, or some other powerful narcotic, might not be compatible with the vigorous use of the lancet.

Bourn, Lancashire, R. BELLINGHAM.
Nov. 27, 1814.

For the Medical and Physical Journal.

Explanation to Mr. Woodham, and additional Remarks upon Vaccination; by Mr. R. WALKER.

IN the last Number of the Medical and Physical Journal, I observed a communication entitled "Upon the Folly and Danger of Hypotheses, with remarks on Mr. Walker's innate Principle of Small-pox, by Mr. Woodham," in which that gentleman declares his "strong dislike" to hypotheses in general, and then proceeds to comment, under a similar impression, upon an opinion advanced by me, respecting small-pox and vaccination, in the paper to which the title alludes.

Had this gentleman passed over this hypothesis, as he considers it, he would hereafter have found, that I am as adverse to any preconceived theories or hypotheses as himself or any other person can be.

With respect to the quotations this gentleman has made respecting my opinions, in this instance, and his remarks upon them, I shall pass over them all, one excepted, being well aware that such opinions of mine as are there given, should they be ill-founded, cannot be productive of any evil tendency in practice. The circumstance alone which I shall notice is the following observation, produced in the manner of analogy, thus, "As well might it be said that this essence or innate principle is an alkali; and that the exciting cause is an acid, that coming in contact, an effervescence or commotion

motion takes place in the lymph or blood, and a neutral salt is formed, which, being expelled from the system, leaves the person ever after secure from the disease."

Without remarking upon this supposed analogy, which is by no means congenial with my ideas of analogies, were I to attempt to elucidate my opinion respecting a prior existence in the system of the essence, or an innate principle of small-pox, its excitement into action, and its expulsion, by a chemical analogy, I should adduce the example of what happens in the instance of fermenting liquors, as beer, &c. The essence or innate principle of fermenting matter, as we well know, exists naturally in the beer; but, in order to expel or drive out this essence or innate principle, remaining dormant or latent, and from which it is necessary it should be purified by art, a small portion of the same essence, in the form of yeast, which had been previously produced by a similar process, is added—the desired ferment or commotion is excited, the original principle of fermentation existing in the beer is collected together, and finally expelled, or driven out, and used for a future similar purpose, and so on *ad infinitum.**

I must confess I consider this as an intelligible and tolerably apt illustration of my opinion. I have, however, to thank this gentleman (Mr. Woodham) for furnishing me with the hint of illustrating my opinion by a chemical analogy.

Being called back, as it were, to the subject of vaccination, I shall take the opportunity of reverting to a circumstance of no small importance respecting the practice of it.

Many practitioners are in the habit of making two punctures in vaccination, by way of ensuring success, and likewise for the purpose of transferring the affection to others.

With respect to the first reason for the necessity of more

* I have taken *malt liquor* as an example, because it is the most familiar instance of fermentation. The essence or innate principle in this instance I consider to be existing originally in the wort, viz. carbon and oxygen, the union of which, forming carbonic acid, is the natural or inherent cause of fermentation, which produces and throws out what is called yeast; and which is commonly used as a ferment, for the purpose of promoting fermentation in future processes of the same nature. Here then we have, by analogy, I think, a solution of this gentleman's supposed paradox or inconsistency, viz. "It is, therefore, according to circumstances, both agent and patient, cause and effect, the excitement to action, and the recipient of that excitement:" and this I take to be the case likewise in inoculated small-pox, and in vaccination.

than one puncture, I have already given my reason for dissenting from it. It is, however, asserted, that, if the pustule or vesicle be opened, and lymph or fluid taken out of it, the due progress of the pustule may be interrupted thereby, and the intention of security from small-pox by vaccination defeated.

Hence arises, it is stated, the propriety or rather the necessity of more than one puncture, reserving one untouched, or perfect, for the security of the patient, and the other for propagating the infection to others.

It is true, if the vesicle be opened for the purpose of transferring fluid to another person, so soon as it may admit of, viz. before the seventh or eighth day after vaccination, such a circumstance might happen: or if, when the vesicle is become full of fluid or lymph, it be then opened and drained entirely of its fluid, as is occasionally done by lint, or otherwise, in order to collect matter by wholesale for vaccinating a great number of persons from one, such a circumstance may possibly follow, as it likewise might in inoculated small-pox, and the above precaution then be necessary.

Under ordinary circumstances, however, as I am satisfied by my own experience, viz. where the matter is taken by the lancet only, however often repeated from a mature or full vesicle, viz. on the eighth day, or about that period, no such circumstance need be apprehended.

Hence the necessity of more than one puncture arises, not from any defect in the principle of vaccination, any more than in the instance of inoculated small-pox, but from the extraordinary demand for it, and the confined nature of the source from which it is procured, a circumstance I have noticed before, and the probable ill consequences which might arise from it.

If, as is pretended by some persons, the mere accidental rupture of the vesicle, discharging a portion of the fluid, were sufficient to interrupt the due progress and effect of such vesicle, and the security from small-pox be thus prevented, confidence in vaccination would be extremely dangerous, since a restless or irritable child might thus destroy or defeat the effect intended by vaccination, however many punctures had been made.

To the preceding observations on vaccination, it may not be improper to subjoin the following precaution.

Since it is an unquestionable fact, that although, ordinarily speaking, vaccination, properly passed through, renders such persons secure from small-pox throughout life afterwards, yet some anomalies or rare instances do occasionally occur,

of persons, in whom there is no reason to suppose there has been any defect or imperfection in the progress of vaccination, who afterwards, ordinarily, at some distant period of time, viz. about ten years, less or more, according to circumstances, have been attacked by small-pox.

Although the virulence of succeeding small-pox in such persons appears to have been so much ameliorated by the preceding vaccination, as to dissipate all apprehension of danger, or of creating any necessary alarm; yet it might, nevertheless, be prudent, especially in such persons whose apparent habit of body might indicate a more than ordinary disposition for receiving infection, viz. a peculiar fullness or impurity of habit, to repeat the operation of vaccination, provided such persons are liable to be exposed to infection *from* small-pox, which might afford a test of their security, or have the effect of eradicating such disposition, should any still exist in the habit.

Moreover, should such danger of infection present itself, and no vaccine fluid to be obtained, it might be justifiable to inoculate with small-pox, under the usual precautions respecting regimen, &c.

We sometimes hear of an instance, one I know of myself, in whom repeated vaccination has failed to produce the intended affection: this need be no matter of surprise, when it is recollected the same circumstance has happened in inoculation for small-pox; and that some persons have resisted the infection of small-pox, in the natural way, throughout life, although frequently exposed to it. In such a case, however, it would be prudent to vaccinate again at a distant period, or to inoculate.

Since nothing should be omitted which can tend to the security of individuals, and with a view to exterminate or annihilate small-pox, it might be advisable, at the distance of ten years or more, to vaccinate a second time, although no immediate danger of variolous infection might be present.

The Surgical Editor of the Medical Journal, in a note at p. 475, respecting my paper on the removal of enlarged tonsils, by an improved mode of applying the ligature, suggests, that the method by excision with curved scissars, which he has practised, is preferable to the method by ligature. Not having had any experience in this mode myself, although I believe it to be in use with some practitioners, I can say nothing as to the merits of it, the method by ligature only being what I have been accustomed to, and which I understand is still the most prevalent or general mode in practice.

Moreover, the same gentleman mentions an instance of a

young woman, whom he cured by excision, who had been dismissed the Oxford Infirmary, after an unsuccessful attempt by the method originally proposed by Cheselden, but which, I believe, is at present but little practised, viz. by conducting a double ligature through the base of the tonsil, and then including each half of the tonsil, by means of the two ligatures.

With respect to this circumstance, having had no communication with the Infirmary for seven or eight years past, I can only say confidently, that no such operation was performed, or attempted, during my residence there, to my knowledge.

The mode I have recommended for applying the ligature for the extirpation of enlarged tonsils, may be used with equal facility, I presume, in all tumours which require such an operation, when situated beyond the reach or command of the hand itself for performing it. I must confess, I think myself there is an eradicating effect produced, in consequence of the part sloughing away, when the ligature is duly applied, in extirpating enlarged tonsils, and such like enlargements, which may not take place by simple excision.

Since my communication respecting loose fractures, another case of the same kind has presented to me, in which I have applied vesicatories with my former success. In this instance, (an oblique fracture of the leg,) to which I was called in, seven or eight weeks after the accident, the leg is so perfect, and the bone so smooth, notwithstanding the frequent necessity of moving the limb, in consequence of the repeated application of vesicatories, that neither the eye nor finger can ascertain where the fracture was—in the former instances, fifteen or sixteen weeks had elapsed before the application of blisters. I think from three to five blisters may ordinarily be sufficient.

Oxford; Dec. 6, 1814. RICHARD WALKER.

For the Medical and Physical Journal.

Remarks on the various Forms of Quackery; by Mr. G. Stevens.

BEING an old bachelor, very much at leisure, part of my time is killed at cards, and part in reading periodical publications: among the rest, the Medical and Physical Journal serves me for conversation with our village doctor, when I can get him to a rubber. When it is our turn to set out, I have often remarked how much more lookers-on see of the game than those who are actually at play. This has suggested

suggested to me the idea, that, if you will admit a paper from an unprofessional man, your readers may meet with hints which may not occur to your usual correspondents. A passage I lately met with in Baron Grimm's Memoirs, has furnished me with a subject.

"The most celebrated practitioner that ever appeared at Paris, (says that entertaining writer,) was a private in the French guards. His only remedy was a *tisane of hay* boiled in water. He treated his patients *en bêtes*, and he judged rightly on the subject. This decoction of hay soon placed him in a situation to give good dry forage to two horses which were harnessed to a good carriage, in which he rode to visit his patients, whilst the then *docteur regent* of the faculty was making his rounds on foot through the *bous de Paris*. The faculty soon after made a complaint to the Marechal de Biron, to oblige this hay-doctor to lay down his equipage, and reserve all his forage for his patients."

When I hear the learned part of your profession exclaim against quackery, I often wish to know which of them is guiltless, to cast the first stone. Was this private in the guards the only practitioner whose patients were taking an equally innocent tisane, and how many of those whose remedies were more powerful were really succeeding better, and, after all, are we certain that there is no efficacy in a decoction of hay? Ought there not, therefore, to be certain lines fixed between the quackery of regulars and the quackery of professed quacks?

Nothing is more common than for a medical man, when he reads in the paper how much better my Lord or my Lord Duke has found himself by the attendance of Dr. ——, or Sir ——, to remark—"a good puff!"—"a good piece of quackery!" This is indeed now so well understood, that the officers of the revenue, I am informed, always demand the customary duty of advertisement on such paragraphs. But there is another species of quackery, in my opinion, much less excusable, and much more artful. The trick I allude to is the publication of half what the author means to tell the world. Thus, one writer informs us, that to distinguish certain complaints requires great discernment, long practice, a particular habit of attending to these subjects; in short, it is not difficult to see that he means—"You must apply to me, and I do not wish to say too much; some people may think lest I should render them as wise as myself; but the truth is, I know no more than you, and therefore do not chuse to expose myself."—One or both reasons must be the true one, and whichever it may be the quackery is the same.

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The next species of regular quackery is the publication of a single volume on any subject, with the promise of compleating the work hereafter. On this occasion we have always an enormous deal of learning, ten thousand suggestions about the importance of certain questions, and the number of experiments and observations which the author found it necessary to make before he could satisfy himself in certain intricacies. The last thing in all these cases, and what the reader is anxiously looking for, is the treatment; but, when he comes to the end, he finds the author has not entirely made up his mind on some points, or that his various occupations have not allowed him leisure to complete this part of the work to his satisfaction; he promises, however, that it shall soon appear: in the mean while, whom can the reader consult so well as this learned and experienced writer?

The last kind of professional quackery which I shall notice, is one which it is astonishing to me that the college has not hitherto noticed in their own body; this is the courage with which physicians, usually the youngest of the order, attempt to lecture on all the various branches of the art. As they grow older they seem to be more modest, and to satisfy themselves with one branch only. This, Messrs. Editors, is a crying evil. Every man who undertakes to teach is presumed to have devoted his time exclusively to the science of his lectures; by these means he is not only more intimately acquainted with his subject, but learns also the best mode of teaching it. Can this be expected from any one in two such sciences as medicine and chemistry? The first considered, since the days of Hippocrates, as too much for a man's life, and the second improving so rapidly every hour, that the best chemists, whose whole time is engaged in such studies, not unfrequently learn the fallacy of those lessons which they delivered only a week before. I am told, that, when the college see any thing unbecoming in the conduct of their members, they usually send them an admonition: have they ever sent such admonitions to unfledged doctors, who undertake to teach at an age when their own education must be very incomplete, or who venture to lecture on more than one branch? Till these things are attended to, I think it as well to be cautious how the regulars, as they call themselves, talk of quackery.

Yorkshire; GEO. STEVENS.
Dec. 1, 1814.

For

For the Medical and Physical Journal.

On the Functions of the Nervous System; by C. W. SMERDON, Member of the Royal College of Surgeons.

TO think and to compare are the operation of faculties which are peculiar to man, and it is to the proper application of these that the human mind is indebted for its highest attainments. To draw conclusions on the nature of causes that are only known to us by their effects, by comparing them with others which are familiar to us, and whose effects are similar, is, I conceive, a very rational method of gaining knowledge: by this mode of theorising, the intricacy of science is considerably lessened; and, where phenomena do not admit of explanation by experimental inductions, we shall, by such means, approximate as near as it is possible to truth. From this source, natural philosophy has received the most considerable of its improvements. By the falling of an apple from a tree, the immortal Newton gained his first ideas of gravity, by which, by the curve which a body forms when thrown into the air, and by centrifugal power, the evolution of the planets around the sun, as their common centre, is very rationally explained. The simple experiment of pouring water on a body placed in a basin, proves the refractibility of the rays of light, and consequently explain the phenomenon of twilight; and, by reasoning on the resemblance which apparently exists between a common culinary fire and the sun, we are indebted for no inconsiderable portion of what we know of this luminary.

In the following observations, some of the functions of the nervous system are attempted to be explained on this principle, nor can such a plan be considered as irrational, since we know that the anatomist, even after the most attentive dissection of the brain, is still left to wonder and to doubt; nor has any clue hitherto been discovered, which can lead to the physiology of that organ—the human intellect, that masterpiece of creative wisdom, is still enveloped in impenetrable mystery.

It is an axiom which I think cannot admit of doubt, that all organic actions depend, first, on the living principle; secondly, on a peculiar structure; and thirdly, on stimuli: and it is equally clear, that actions are powerful in proportion to the quantity of stimuli applied.

All matter animated with life, and possessing the property of contracting on the application of stimuli, seem to be endowed with a certain principal or spring of action, destined by nature to be exquisitely sensible to peculiar impressions: this principal is the irritability of the modern physiologist.

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the manner in which the auditory nerve is distributed, differ as much from the eye and the formation of the retina, as sound does from sight; and the extremities of the fingers, and the papillæ of the tongue, constituting the organs of touch and taste, are structures evidently peculiar to each other. Why is it, I will ask, that bile is not secreted in the kidneys, and urine in the liver? Is it because a different sort of blood is sent to each of these organs? This we know is by no means the case; and it is highly probable that nature pursues the same laws in the production of all the secreted fluids. The reason, I think, is obvious—the structure by some unknown power inherent in itself produces the variety; and, as the liver is totally different in this respect from the kidneys, so it transforms decomposed blood into bile, while the latter secern the same sort of fluid into urine. By the same argument we may ask, why is it that we never see with our ears, or hear with our eyes, or smell with our tongue? Is the nervous fluid, as it emanates from the brain, totally different in each of these parts, thus producing different effects? If we may be allowed to judge of all the senses by the nerves that supply the papillæ of the tongue or finger, we might place a negative to this question with as much plausibility as to the same respecting the secretion from arteries. To the first of these organs, two branches of a pair of nerves may be easily traced, which send ramuli to the sublingual gland, while every other branch of these nerves are distributed about the face, teeth, &c. following the course of the internal maxillary arteries. Now, who will say that taste resides in the sublingual gland as well as in the tongue, or in such portions of the face on which the rami of the fifth pair are distributed? and still this evidently would be the case, if the external senses were produced entirely by the matter which emanates from the brain.

The inferences which I would draw from the conclusions are obvious, for, as the blood which is sent to different secreting organs is changed into as many different fluids by powers inherent in the organs themselves, so with respect to the nervous system, as it regards the external senses. The organs fitted for the development of these may make some alteration, or occasion some action on the nervous matter which they receive from the brain, when their peculiar stimuli are applied to them; thus, the stimulus of the retina is light, of the olfactory nerves minute particles arising from odorous bodies, and so on, by which means a confusion of the senses may be prevented, and the nerves of each organ fitted for the reception of such impressions as they are destined to receive. It may be asked, indeed, why do the optic and

olfactory

olfactory nerves arise from remarkable eminences, if they derive no peculiarity from them? I cannot answer this question, but I will myself ask, what advantage do the nervi pathetici derive from having their apparent origin in the testes of the brain? Are not these eminences equally as remarkable as the thalami or the corpora striata? and still we know that the pathetici are merely nerves of sensation and loco-motion. The sense of touch is as distinct as any of the others, still, as far as we are able to judge, the nervous filaments which supply the papillæ of the fingers, and those which are destined for loco-motion to the arm, are derived from one common origin.

The cause or causes of the temperature of animals, as well as the source of carbon in the blood, are also referable to the nervous system: of them, therefore, I shall consider in your next, and, in doing so, endeavour to point out a new mode of theorising, that will lead to a rational explanation of these important theological subjects.

Clifton, Bristol; C. W. SMERDON.
Nov. 12, 1814.

For the Medical and Physical Journal.

Cases of a Disease which has lately prevailed in some Parts of the Northern States of America.

Case by J. JACKSON, M.D.

FEBRUARY 22, 1813.—I was called to visit a truckman who was said to have the cramp in his stomach. I found him delirious and in violent distress. His face was very highly coloured, almost livid, his skin mottled in some parts, his extremities cold, pulse 74, small and frequent. Some of the time he was lying curled up on his side, and some of the time he was on his feet and endeavouring to get away, from which he was prevented with difficulty by two stout men. He said that he had been cruelly beaten in the stomach by some ruffians, and threatened revenge. I placed my hand lightly on the epigastric region, and he complained bitterly of the pain, saying, it was there he had been beaten. He had some slight convulsive affections over the whole body while I sat by him, and the attendants stated that he had had several similar affections since his seizure.

From the attendants I learnt that he had eaten his dinner as usual, and left the house apparently in perfect health. He went to his stable, and, just as he reached the door, he complained of violent distress at the stomach, which those about him supposed to be the cramp. This distress was so great

that he was unable to stand up; and immediately he became delirious. He was carried home, where he had been two hours when I visited him. During this time he had appeared constantly to be in extreme agony in the abdomen, and had vomited three times so as to throw off his dinner.

While I was examining and making inquiries into the case, about twenty minutes after first feeling his pulse, I found them very greatly altered. They were not increased in frequency, but were dilated and stronger, and had become hard.

I resolved to perform venesection; but this was difficult on account of the constant agitation and delirium of the patient. He submitted, with reluctance, partly to force and partly to persuasion. The blood spouted freely from a large orifice, but his restlessness caused the bleeding to be irregular and slow. The difficulty diminished remarkably during the flow of blood. After four or five ounces were taken, he began to grow more calm; after ten or twelve ounces his face became more pale; before he had lost sixteen ounces he fell asleep, and while the blood was still flowing in a small stream he awoke perfectly rational. After the loss of eighteen ounces of blood the pulse were 66, but not diminished in strength nor in fulness.

The patient now confirmed the account which I had received of his seizure. He said that the attack of pain in the epigastric region was extremely sudden and severe, that it continued to be very distressing with great soreness, that it was increased by the least motion and by an attempt to gape or to make a full inspiration. His head and limbs were also very painful.

In the remaining history of this case I need not be minute, as the circumstances already stated show its character. Twelve more ounces of blood were taken after three hours, and now as before a thick inflammatory crust was formed. He was blistered over the epigastrium, and the next day he was freely purged. He took submuriate of quicksilver with tartrite of antimony and opium. On the second day the disease was fast subsiding. On the third day he walked about the room; and on both these days he coughed and expectorated thick mucus with ease. On the fourth day he went abroad.

Cases by WILLIAM GAMAGE, jun. M.D.

CASE 1st.—In the evening of January 27th, 1813, I saw Mrs. G. She had considerable difficulty of breathing, and complained of distress over the whole chest, without adverting to any one part as being more painful than another; but, when asked, she said, it was most acute in the right side. She

She had pain in her head, back, and limbs; skin hot, but moist; tongue coated white; pulse feeble, quick, and sharp. The disease commenced suddenly with a severe chill, and she had been ill about eighteen hours. I directed a cathartic, and, after its operation, a pill, consisting of two grains of calomel, one of opium, and one of one quarter of a grain of tartrite of antimony.

In the morning her symptoms were not mitigated, though the medicines had operated, as expected. I determined to bleed her, and took away, by a large orifice, sixteen ounces of blood; her pulse immediately became fuller and soft. The blood on standing exhibited a pretty thick buff. The pain was much relieved, except in the right side, where it was felt more acutely. A blister was applied to this side, and the pill, the opium being diminished to a quarter of a grain, given every eight hours; mild drinks indulged in freely.

29th.—The blister had produced its effect, but the pain in the head and side and some difficulty of breathing, still remained; she had a frequent and hard cough; pulse quick and hard. I again opened a vein, and took twelve ounces of blood, and the pulse became soft. After this bleeding the disease seemed to be abating, till the evening of the 31st, when from some imprudence the pain in the side, distress, and difficulty of breathing, returned with great violence; pulse small, quick, and hard. I immediately bled her to the amount of sixteen ounces, and relief soon followed this evacuation. The next day the mouth was sensibly affected by the calomel; but it was some time before her cure was complete. She was young, and had rather a delicate constitution.

Case 2d.—February 12th, 1813. I was called towards evening to Mr. E. B., a stout hard-working man, of about thirty-five. He was suffering with very difficult respiration, violent pain in the right side, and distress across the lower part of the thorax; pain in the head, back, and limbs; hot but moist skin; tongue coated white; countenance flushed and distressed; pulse small and quick, and easily lost by pressing on the artery. The disease commenced with a severe chill, and had continued about twelve hours. I immediately bled him from a large orifice to the amount of from 26 to 30 ounces. Before I had finished, he expressed his joy for the relief which it gave him, and begged me to take more. He was not in the least faint, and his pulse in a few minutes became large and full. The blood exhibited a very thick buff. A cathartic was directed, and mild drinks.

During the night the bandage on the arm from which he was bled got loose, and he lost by this accident, as I judged, about

about six or eight ounces of blood. This was followed by no disadvantage; the pain in the side was still acute; respiration difficult, and the pulse quick and hard, and seemed to demand the evacuation even more than before the first operation; I therefore took from the same orifice, eighteen hours after the first bleeding, sixteen ounces, and the pulse became slower and soft. The blood exhibited much less buff than yesterday. A blister was applied to the afflicted side, and the submuriate of quicksilver was given, as in the former case. Assisted by one or two gentle cathartics, he recovered in a few days so as to take tonic medicines.

Case 3d.—March, 1813. De G., a common labourer, and a very robust man, had a severe ague fit, which was followed by great distress in the region of the diaphragm, and pain in the left side; skin hot, and the pulse quick and small; was relieved by one copious bleeding immediately after the attack. Assisted by a blister, cathartic, and calomel, he got well in a short time.

Case 4th.—March 6th. E. S., a domestic servant, after a chill was seized with violent pain in her right side and shoulder, inability to move her right arm, and difficult respiration, pain in the head and limbs; pulse small and quick, and easily compressed; skin hot, tongue coated. I took from her in a large stream twenty ounces of blood, and she was relieved. The bandage which was applied to the arm getting in the night above the opening in the vein, caused a considerable loss of blood; the exact amount, however, could not be ascertained. The accident was entirely in her favour. She recovered rapidly with very little medicine.

Case 5th.—Mrs. C., a labouring woman, had symptoms very similar to those in the 4th case. She got well soon after one copious bleeding.

Case 6th.—March 31st. Mr. R., intemperate in his habits, and between fifty and sixty, was seized with the most excruciating pain in the right hypochondrium, accompanied with difficult respiration. He took a large dose of senna and manna, which operated smartly, but produced not the least abatement of the pain. He became delirious; skin hot, but in a profuse perspiration; pulse small and quick; but I bled him to the amount of twenty-four or twenty-six ounces, and the pulse became slow and full. The pain gradually subsided, and he was well in a few days.

Case 7th.—In the evening of April 9th, 1813, I visited Bloke, a young man, and a sailor. He was prostrate in his bed, and breathing with much difficulty; had great distress in the chest, particularly about the heart; violent pain in his head and limbs, and a total inability to move the right arm

or

or leg. He went to bed the evening before apparently well, and was taken in the night; he had been ill about sixteen hours, and much of the time delirious; skin hot; pulse small and quick. I determined to bleed him; and watching the pulse, I perceived, that when I had taken about a pint of blood, it became large and tense; I let it run, till I had obtained above half a pint more, and the pulse seemed soft. After this he was rational, and his pains much abated. He then took an emetico-cathartic, which operated smartly, and he could move his limbs. The submuriate of quicksilver in small doses was directed; in three days it affected his mouth. He recovered without further difficulty.

Several instances of slighter affections of the lungs occurred during this period, in which bleeding was employed with happy effects. In fact, the lancet has been a very useful companion to the materia medica in most of the varieties of disease of the latter part of winter and the spring.

I had no opportunity of observing after death the morbid effects of this disease in any case, where the symptoms had previously been under my own inspection. By the politeness of friends, I have been present at three or four examinations of those who died by this disease. The phenomena exhibited on those occasions, the hardness of some part of the lungs, their gorged state, their dark colour, approaching almost to black, the pericardium red and thickened, or covered with livid spots, and other marks of the most violent inflammation, demonstrated to me, in a manner the most positive, the necessity of copious evacuations of blood to cure this disease, notwithstanding the forbidding aspect of the pulse, which commonly attends it. I was indebted to an early opportunity of this kind for, at least, my confidence in bleeding as a principal remedy; and, so far as I have known, every case in which this remedy had not been used freely and early in the attack, has terminated unfortunately.—*New-Eng. Journal.*

For the Medical and Physical Journal.

To W. O., *on his Inquiries in the last Number.*

Morbi haud ignarus miseris succurrere disco.

SIR, AND FELLOW-SUFFERER,

I HAVE read with real sympathy your affecting history, and should not do justice to my own feelings if I delayed giving you at least one comfort, in assuring you, that I have gone through most of what you complain and am now in good health, though not without occasional pains at the change of weather.

Having

Having, like yourself, enjoyed the advantage of a liberal education, I read as you have done, and now I will tell you my authors, and the manner in which I availed myself of them. Respecting the first, most probably your account would be similar to mine; but, by the tenor of your letter, the latter does not appear to have occurred to you.

It cannot be necessary to mention the late Mr. Hunter. I read his treatise at first, before Dr. Adams had published the edition with his own commentaries. This, when it appeared, led me by reference to his Morbid Poisons, and the references there led me to all the other writers on that strange disease, and the various others with which it is confounded or complicated. There is nothing in either of these works that a well-educated man with leisure and patience may not understand. Mr. Hunter, though extremely dull in his style, has introduced a manner of writing intelligible to every reader; and such of his followers as are not well understood, are only obscure from the difficulty of making up their minds on subjects in which they are unwilling to confess their ignorance. This you will easily perceive if you read with as much judgment as you write.

As I read each author, I selected those passages which applied most to my own case; and if not satisfied with their account, wrote to them for further information, inclosing my fee, a measure which the present currency very much facilitates. I consulted none verbally, but chose to have their opinions in writing, by which they were forced to think, and I had leisure to compare their accounts. Not satisfied with mere advice and prescriptions, I always required the application of that advice to their various writings, and by these means soon discovered whether they were as firm in their decisions as they pretended to be, and whether that firmness arose from experience and conviction, or was only an outside show of superior knowledge. In the last case my learned correspondent soon dropt writing, or answered me in so petulant a manner as induced me to drop all further communication with him. Be particularly aware of those who use hard words. I was told of *necrosis*, and, presuming it could only be a Greek term for mortification, expressed my uneasiness. The answer was evasive, and I never could gain a satisfactory explanation of the word. Have you been more fortunate?

To be short, sir, I found ample satisfaction in one rational being who seemed pleased at my multiplied inquiries, and flattered at the manner in which I questioned him concerning his own writings. By pursuing a similar course, I have no doubt of your succeeding, like myself; and, with every wish for such success, remain, &c.

C. Y.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

*On some Unknown Combinations of Chromic Acid with different Bases.** By Professor John.

I undertook these experiments with a view of filling up some gaps which still exist in the table of chromates; but I must acknowledge that they do not possess the accuracy which might have been obtained by performing the experiments upon a larger scale. When we attempt to chrystallize salts in small quantities, we have often to struggle with insurmountable difficulties; and, even in the most favourable circumstances, it is very difficult to determine the form of small, and often imperfectly formed, crystals.

1. *Chromate of Soda.*—Chromic acid, neutralized with soda, forms a dark yellow solution, which, by spontaneous evaporation, forms thin six-sided tables, with two long and four short faces. They are transparent, easily soluble in water, and do not alter vegetable blue colours. They are not entirely insoluble in alcohol, but require a considerable proportion of that liquid to dissolve them.

2. *Chromate of Potash.*—Chromic acid dissolves potash, and at the same time lets fall a small quantity of green oxide.† The orange-coloured solution has a great tendency to efflorescence, especially when little pieces of wood are introduced into it. Chromate of potash, when rapidly evaporated, forms a yellow saline mass; when more slowly evaporated, it forms four-sided tables; they are not altered by exposure to the air, are transparent, and have an Aurora-red colour.

3. *Chromate of Ammonia.*—This compound effloresces, and forms dendritical crystals, while a brown powder separates, which is oxide of chromium. It is formed in consequence of the decomposition of the chromic acid by the ammonia, and appears as often as the salt is dissolved in water, and allowed to effloresce. When this salt is exposed to a red heat, it is completely decomposed.

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* Translated from Schweigger's Neues Journal für Chemie und Physik, iii. 378.

† This oxide was without doubt dissolved in the chromic acid, and owed its formation to some accident, probably the filtration of the acid through paper. When this green oxide is separated by the filter, no new precipitate appears. Ammonia, on the contrary, precipitates the chromic acid.

4. *Chromate of Glucina.*—Glucina, thrown down by carbonate of potash, was dissolved very slowly by concentrated chromic acid: the solution has a yellow colour, and does not seem capable of crystallizing.

5. *Chromo-Sulphate of Glucina.*—When sulphate of glucina is poured into chromic acid, the appearance of the solution is not altered; but when the liquid is evaporated there remains behind a triple salt in dendritical crystals, in a state of efflorescence.

6. *Chromate of Yttria.*—Chromic acid dissolves yttria, cold, in considerable quantity and with effervescence. The solution has an astringent and pungent taste, and, like most of the chromates, has an orange-red colour passing into yellow. The solution is quite neutral. Chromate of yttria, gives by evaporation dendrites, which are composed of very fine and firm crystals, which, if I may be allowed a comparison, are similar to a tree loaded with fruit. These crystals, which consist of prisms and cubes, have a peculiar appearance. Chromate of yttria is very soluble in water.

7. *Chromate of Strontian.*—This salt is insoluble. When carbonate of strontian is thrown into chromic acid, a yellowish powder is formed, which is this salt: probably it would be most easily procured by double decomposition.

8. *Chromate of Barytes.*—Carbonate of barytes is not dissolved by chromic acid; but the earth combines with the acid, and forms a light yellow insoluble powder, which lies at the bottom of the vessel. This salt is best obtained by mixing together muriate of barytes and chromic acid.

9. *Chromate of Nickel.*—Chromic acid dissolves the carbonate of nickel in considerable quantity; but, after some hours, a pulverulent precipitate falls from the clear solution, which is again soluble in an excess of acid. This precipitate is probably a chromate of nickel. The acid solution gives, by slow evaporation, fern-leaved crystals in the state of elliptical plates, truncated on both sides, which towards the beginning and end of the leaf stalks become smaller, in order to preserve the resemblance. When these crystals are exposed to a high temperature, the acid is decomposed, and a black mass formed, which is insoluble in water, and consists of oxide of chromium and oxide of nickel.

10. *Chromate of Cerium.*—Carbonate of cerium is dissolved in great abundance by chromic acid. The solution has a yellow colour, and an astringent taste: after some time the chromate of cerium falls to the bottom as a yellow powder. The remaining solution deposits some small reddish transparent crystals, which make their appearance in the midst of an uncrystallizable mass.

11. *Chromate of Tellurium.*—Tellurium likewise is dissolved by the acid: of all the chromates, this salt appears least disposed to crystallize. It deposits some soft round grains, but the greatest part goes into the state of a syrupy mass.

12. *Chromate of Uranium.*—Carbonate of uranium is readily dissolved with effervescence by chromic acid. The solution is coloured yellow, has an astringent taste, and the salt is easily dissolved

solved in water. It shoots into a dendritical mass containing small cubic crystals. They have an aurora colour. This salt melts in a weak red heat, and after cooling appears of a dark brown colour. This compound does not appear to be so easily decomposed as chromate of nickel; for the brown mass dissolves in water, except a small residue, which is a mixture of oxide of chromium and oxide of uranium. The solution has a yellow colour, and potash precipitates from it yellow oxide of uranium.—*Annals of Philosophy.*

Remarks on Mr. Hume's Paper on Barytes, contained in the Philosophical Magazine, vol. xiv. 1802. By Mr. R. Phillips.

Having had occasion to consult various authorities respecting the chemical properties of barytes, I was much surprised on reading the contents of a paper on the subject by Mr. Hume, printed in the Philosophical Magazine for 1802, but which I do not remember to have seen until very lately.

In this memoir some facts are stated, which the author says he "had never yet seen pointed out by any chemical writers;" and others are mentioned, which he asserts had never been previously "enumerated by any author."

The statements which I shall first notice are, "that nitrate of barytes, not in crystals only, but even a saturated aqueous solution, is perfectly insoluble in nitrous acid of the usual specific gravity;" and "that muriate of barytes is virtually insoluble in muriatic acid."

Now that these facts were well known, and had been described previously to the publication of Mr. Hume's paper, will appear by the following quotation from a memoir by Sage, contained in vol. lxxxviii. p. 145, of the Mémoires de l'Académie des Sciences for 1788:—"L'acide nitreux à trente deux degrés, fait d'abord une vive effervescence avec le spath pesant aéré: le nitre qui en resulte demandant beaucoup d'eau pour sa dissolution, se précipite aussitôt qu'il se forme, comme l'a observé M. Klaproth."

"L'acide marin dissout avec effervescence le spath pesant aéré: le sel qui en résulte se précipite aussitôt. L'acide marin qui surnage, ne tient point en dissolution le sel à base de terne pesante."

The next discovery claimed by Mr. Hume to which I shall advert is, that "sulphate of strontian has a capacity for super-saturation, forming an acidulous sulphate in solution, and decomposable by water;" and of this fact he asserts that "no author has given any account."

That this statement as to sulphate of strontian is correct, and the assertion respecting it erroneous, is proved by the following extract from p. 334, vol. i. of the English Translation of Klaproth's Analytical Essays, published in 1801; and the original was printed in Crell's Annals for 1795:—"Upon 60 grains of pulverized strontianite, introduced into a retort, I poured by degrees two ounces of concentrated sulphuric acid. The first portion that effused

caused a great frothing. The contents of the retort were then brought to boiling in a sand heat. After cooling, the earth was found entirely dissolved, and the solution colourless; but it is again decomposed as soon as any water is added."

The remaining parts of Mr. Hume's paper which I shall notice are contained in the following quotations:—"Sulphate of barytes is completely soluble in sulphuric acid, forming a saline fluid or acidulous sulphate, analogous, in some of its characters, to phosphate of lime and many other salts, with capacity for excess of acid; decomposable by water alone, which returns it to simple sulphate; and this salt," says Mr. Hume, "never has been enumerated by any author."

"Carbonate of barytes is also totally decomposed by, and soluble in, sulphuric acid, forming, of course, the same acidulous sulphate. Respecting any figure this new salt may put on, I have not yet been able fully to determine; but I strongly suspect it may, under particular circumstances, be made to crystallize."

Notwithstanding the unqualified assertion by which some of these facts, as well as those respecting strontian, are accompanied, it will appear that all of them were well known, and had been repeatedly described, before the appearance of Mr. Hume's paper, in French, German, and English.

1. The solution of sulphate of barytes in sulphuric acid, the crystallization of the solution, and its decomposition by water, are all stated in a letter from Morveau to Bergman: Journal de Physique, vol. xviii. p. 299, 1781.

2. These facts, with the additional one of the decomposition of the carbonate of barytes by sulphuric acid, are all described by Dr. Withering: Phil. Trans. 1784

3. Excepting the crystallization of the solution of the sulphate of barytes, the same circumstances are related by Sage, in the paper already quoted: Memoires de l'Academie, &c. 1788.

4. With the above exception, they are also detailed in the Journal de Physique, 1788; Sage's memoir having been also printed in that work, with some alterations.

5. These facts are all mentioned by Klaproth, in Crell's Annals, 1795.

6. The solubility of sulphate of barytes in sulphuric acid, and the decomposition of the solution by water are stated by Kirwan: Mineralogy, vol. i. p. 136, 1794.

7. The experiments alluded to are all described with such perfect clearness by Klaproth, that I shall quote the passage from the English translation, vol. i. p. 234, printed in London in 1801, the year before that in which Mr. Hume's paper was published.

After describing the solution of strontian in sulphuric acid, as already quoted, he adds, "In like manner, 60 grains of witherite were combined with two ounces of strong sulphuric acid. A great effervescence ensued; and, with the assistance of boiling heat, a complete solution, as clear as water, was likewise in this case produced. Some days after, the greatest part of this solution formed

formed a crystalline mass of very tender fibres. This solution was also immediately decomposed by the admixture of water, and sulphate of barytes precipitated."

The pages of the Annals of Philosophy, the Philosophical Magazine, and the Medical and Physical Journal, exhibit ample evidence of Mr. Hume's proneness to complain without having been injured, and to attack under semblance of defence: in future, he will probably be more cautious; and, considering his situation with respect to the authors I have quoted, it will evince his prudence to refrain from charging those who may hereafter even unfairly question the priority of his remaining or future discoveries, with the conduct unmeritedly ascribed to two most respectable physicians of "unjustly throwing the veil over his efforts, in order to display their own."*—*Annals of Philosophy.*

Further Experiments and Observations on Iodine; by Sir H. Davy, LL.D. F.R.S. V.P.R.I.

'*On the triple Compounds containing Iodine and Oxygen.*—I described in my last paper the action of iodine on fixed alkaline lixivia, and the deflagrating salts it forms. In the first experiment which I made on these compounds, I employed the first crystals which fall down from moderately strong solutions of potassa and soda saturated with iodine, which had been purified by being repeatedly acted upon by distilled water: I now find that this process is not sufficient to free the triple compound from the double compound; and that to obtain them in a state of absolute purity, it is necessary to boil them repeatedly in small quantities of alcohol of specific gravity of from 8·6 to 9·2, which dissolves the double compound, but has little power of action on the triple compound.

'The triple compounds, when purified, present some curious chemical phenomena, which a minute quantity of the double compound adhering to the crystals that I operated upon, prevented me from observing in the experiments I have already communicated to the Society. I shall describe these phenomena as they are produced by the triple compound of potassium, as this substance is most easily procured in considerable quantities, but, as far as I have been able to observe, the phenomena presented by the compound of sodium are precisely analogous.

'The triple compound of potassium purified by alcohol is almost tasteless, has no action on vegetable colours, is very little soluble in cold water, but more soluble in hot water; when it is thrown into concentrated nitric, or sulphuric, or phosphoric acids, it has no violent action on them. By heat it may be dissolved in them, and the solutions, when saturated, congeal and form crystalline substances intensely acid. When the substance formed by the triple compound and the nitric acid is strongly heated, the nitric acid flies off, and at the temperature at which it is entirely ex-

* Vide Med. and Phys. Journal, vol. xxvi. p. 109.

pelled,

pelled, the substance itself begins to decompose and affords a little iodine and much oxygen.

If the solution of the triple compounds in sulphuric or phosphoric acids be heated strongly at the temperature at which the acids sublime, the triple compound itself is decomposed, and it affords oxygen and iodine, and leaves acid sulphate and phosphate of potassa. If when the mixture is rendered fluid by heat, a little sugar or other combustible matter is added, there is a violent action, and iodine is disengaged with great rapidity.

The triple compound dissolves without decomposition in solution of phosphorous acid; but, on heating the solution, oxygen is attracted by it, iodine appears, and phosphate of potassa is formed.

When the triple compound is thrown into concentrated muriatic acid, there is an effervescence, the smell of chlorine is perceived, the fluid becomes yellow, and when evaporated yields the chlorionic acid.

When the solution of the hydroionic acid in water is poured upon the triple salt, iodine is instantly produced in great quantities.

Acetic and oxalic acids dissolve the triple compound without decomposing it. On heating the solution in oxalic acid, the acid becomes brown from the deposition of charcoal, and iodine immediately appears.

When the triple compound is thrown into solution of sulphurous acid, iodine is instantly produced, and sulphuric acid formed, and, if the sulphurous acid is not in too large a proportion, the solution becomes yellow by dissolving by iodine; if more sulphurous acid is added, water is decomposed, and sulphuric acid, and hydroionic acid formed.

The *double compound* of potassium and iodine has no action on oxalic, acetic, sulphurous, or phosphorous acids, but when it is mixed with the triple compound it is instantly decomposed by them, and iodine set free.

The same double compound in its pure state is decomposed very slowly by muriatic acid; and to convert the greater portion into muriate of potassa (potassane) it is necessary that the acid should be very frequently distilled from it, and a part always remains unaltered; when mixtures of the triple and double compounds are exposed to the action of muriatic acid, potassane (muriate of potassa) is instantly formed; and, if the proper proportions are adopted, none of the double or triple compounds remain, and the results are potassane only and the oxychloric acid.

Mixtures of the triple or double compounds produce abundance of iodine when acted on by glacial hydrophosphoric acid gas; but the pure double compound affords only hydrojonic acid gas, and this decomposition offers the best method which has yet occurred to me of procuring pure hydroionic acid. When the two substances are gently heated together, the hydroionic acid gas, which comes over in considerable quantities, forms a colourless solution when absorbed by water.

I have

I have endeavoured to ascertain the composition of the triple compound of potassium. Seven grains that had been dried at the temperature of boiling water heated to redness in a small crucible of platinum lost 2·2 grains. Seven grains heated to dull redness in a small tube of glass lost 1·7 grain; a minute portion of iodine condensed in the middle part of the tube, but no violet vapour was observed in the upper part of it, and there was a very slight appearance only of moisture, so that the loss of weight in this last experiment must be principally ascribed to the expulsion of oxygen.

On a comparison of the results of these two analyses, it appears very probable that this triple compound is composed of one proportion of iodine about 165, one of potassium 75, and six of oxygen 90; which is a composition exactly analogous to that of the hyper-oxymuriate of potassa. The quantities that I used in my experiments were too small to render these results more than approximations, yet the similarity of them to those presented by the hyper-oxymuriates, ought perhaps to render them more worthy of confidence.

I have attempted to obtain pure triple compounds from solutions of baryta and lime, and from magnesia diffused through water, by dissolving iodine in them by heat, and by evaporating the clear liquor until it began to deposit crystals. In this way I have procured substances which, when well washed in distilled water, afforded no iodine to nitric acid, which yielded chlorine and chlorionic acid when acted upon by muriatic acid, and which when distilled afforded much oxygen and some iodine, and left substances which appeared to be mixtures of the earths with compounds that afforded iodine to sulphuric acid, producing a smell of sulphurous acid gas, and which probably consisted of the metals of the earths united to iodine.

The triple compounds from lime and magnesia were soluble without affording iodine in sulphuric acid; but on evaporating the acid, at the time that the vessel of platinum in which the experiment was made became dry and almost red hot, the violet vapour was perceived. Even the triple compound from baryta did not afford iodine or oxygen by treatment with sulphuric acid, except under the same circumstances.

When I first discovered that the triple compounds dissolved in acids without effervescence, I thought it probable that the effect depended upon the formation of a compound of oxygen and iodine, similar to euchlorine, or the oxy-chloric acid, and which remained dissolved in the fluid; and on this idea I made a number of experiments with the hope of obtaining such a combination in a detached form.

I distilled the solution of the triple compound of potassium in sulphuric acid, but the only gaseous product I obtained was oxygen. Sulphuric acid and iodine condensed in the cool part of the apparatus, and the residuum was acid sulphate of potassa.

Conceiving that a compound of oxygen and iodine might nevertheless exist in the fluid, and be decomposable at a high temperature,

ture, I attempted to obtain it by acting on the triple compound of barium by sulphuric acid, and by evaporating the fluid obtained at a gentle heat, and suffering it to cool at different periods of the process; but in this manner of operating I gained no better results.

The triple compound of barium is scarcely soluble in water. Water that had been boiled upon it gave only a slight cloudiness to sulphuric acid, which possibly might be owing to some double compound mixed with it: the fluid when evaporated nearly to dryness afforded fumes which had the characters of those of sulphuric acid, and by a red heat yielded iodine, and left sulphate of baryta.

When the solid triple compound of baryta was heated in very small quantities of diluted sulphuric acid, the fluid separated exhibited acid properties, and when gradually evaporated left a substance which congealed by cooling, and formed a solid of a yellow colour deliquescent in the air, strongly acid, and which reddened vegetable blues, and did not afterwards destroy them. When strongly heated, the substance afforded the same results as the substance procured from the fluid just mentioned.

The residual solid matter obtained by the action of sulphuric acid on the triple compound of barium was treated a second time with sulphuric acid, yet, when heated to redness, it yielded iodine in abundance.

I have repeated these experiments very often, because M. Gay Lussac has stated that an acid compound of oxygen and iodine may be procured by dropping sulphuric acid into a solution of the triple compound of barium; but the conclusions of this ingenious chemist seem to have been founded upon the want of effervescence in the process; and his experiments were made at a very early period of the investigation, and probably before this time he has found reason to alter his opinion.

It is probable that a binary compound of iodine and oxygen may be formed, but the facts presented by the action of acids on the triple compounds are not sufficient to prove its existence.

When small quantities of very diluted sulphuric acid are digested on the triple compounds of potassium and barium, the fluid obtained is always acid, and always precipitates muriate of baryta. I thought it possible that the compound of iodine and oxygen might possess this property; but on collecting the precipitate and examining it, it appeared to be a mixture of the triple compound and sulphate of baryta; and from all the facts it appears that in the action of acids on the triple compounds new combinations only are formed.*

I take

* When sulphuric acid is made to dissolve as much of the triple compound of potassium by heat as possible, the mixture congeals by cooling into a yellow transparent substance, extremely deli-

quescent,

I take the liberty of proposing for the triple compounds the names of oxy-iodes, because, when decomposed by heat, they afford oxygen and iodine. Individually they may be named from their bases. Thus *oxy-potassame*, or oxy-iode of potassium, will signify the triple compound of potassium, oxygen, and iodine, and *oxy-barame*, or oxy-iode of barium, will denote the triple compound of barium.

Some Observations on Hydriodic Acid, and on the Compounds procured by means of it.—I have generally procured the hydriodic acid which I have used in my experiments by the process referred to in the last section, the action of hydrophosphoric acid on potassame, but I have sometimes employed the gas procured from moistened iodine by phosphores.

The hydriodic acid gas is rapidly decomposed by being heated in contact with oxygen, and a solution of iodine and hydriodic gas in water is formed, and it is slowly decomposed by heat alone, affording a deep red-brown easily fusible substance, which seems to be a compound of hydriodic gas and iodine.

When condensed in water, it is instantly decomposed by solution of nitric acid and iodine precipitated.

The solution of hydriodic acid rapidly absorbs oxygen from the air, and becomes yellow, and at last deep tawny orange; and this absorption is assisted by light and heat, the hydrogen is attracted by the oxygen to form water, and the iodine formed is dissolved in the remaining acid.

The concentrated hydriodic acid will probably form a good eudiometrical substance; it does not render the vessels in which it is used cloudy like the hydrosulphurets by the deposition of solid matter, and it does not enlarge the volume of the residual air like some other substances.

The solution of the hydriodic acid is decomposed by being heated with the hyperoxymuriate of potassa, and iodine is produced.

Hydriodic acid gas, as I have mentioned in my last paper, is decomposed by all the metals I have exposed it to, except gold and platinum; and the same metals that decompose it in its gaseous state, likewise decompose it when it is in solution, requiring, how-

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quescent, and very acid. On decomposing it by heat, *neutral* sulphate of potassa remains. Now, as oxygen and iodine are the only substances driven off by heat, it may be asserted that the acid property of the mixture depends upon these two principles; yet this conclusion does not follow according to sound chemical logic: iodine alone destroys the alkaline properties of potassa, and oxygen and iodine in combination with potassium form a difficultly soluble and almost tasteless substance. This substance, the triple compound, has only a weak attraction for sulphuric acid, and it might be expected that in combining with sulphuric acid it would not deprive it of its acid properties.

ever, in some cases, the assistance of heat. The fluid hydroionic acid tarnishes silver at common temperatures, and dissolves mercury slowly when boiled in contact with it.

It dissolves the alkaline and common earths, and forms with them compounds very analogous in their properties to the compounds they produce when acted on by muriatic acid.

I heated dry quick-lime in a small tube filled with hydroionic acid gas, a yellow fluid immediately formed, which was coloured by dissolving hydroionic gas and iodine, and a fusible compound soluble in water, and which had a bitter taste similar to muriate of lime, was produced.

I made the same compound by dissolving marble in the hydroionic acid; the compound when heated to redness became fluid, and when kept in fusion in contact with air emitted iodine, gradually lost its fusibility, and from being neutral became alkaline, so that at a high temperature iodine is partly expelled from calcium by oxygen. I proved this still more distinctly by fusing the compound in a close vessel, in which it was confined by mercury. There was no change. I admitted a little oxy-potassame, and caused it to give off oxygen by heating it: as soon as the calcareous compound was fused in contact with oxygen, it instantly emitted iodine, and lime was formed on the surface.

The compound formed from hydroionic acid and baryta is an acrid bitter substance, very similar in its taste to *barytane*, (fused muriate of baryta,) not decomposable when heated to whiteness unless oxygen is present, but, when it is heated in contact with oxygen, oxygen is absorbed, and a part of its iodine expelled.

Magnesia dissolved in hydroionic acid without effervescence, and the solution evaporated gave a solid substance, having a taste very similar to muriate of magnesia. Like that salt, it partly lost its acid by a red heat; but a portion remained not decomposable out of the contact of air, but which instantly afforded iodine when heated in contact with oxygen.

I dissolved glucina, ittria, and zircona, in the hydroionic acid; they formed neutral saline compounds. The compound of hydroionic acid and glucina was less soluble and more astringent in taste than the muriate of glucina, and was entirely decomposed when heated in the open air, affording hydroionic acid and iodine.

The compound formed from ittria was more soluble, and highly astringent; that formed from zircona astringent, with more of bitterness. Both these salts were decomposed when heated in the atmosphere, at a low red heat; a smell of hydroionic gas was perceived, iodine was produced, and the earths remained.

I mentioned, in a note dated Montpellier, Jan. 10, (containing a correction for my last communication to the Society,) that the alkaline property which I at first supposed to belong to the compounds of potassium and sodium with iodine, depended upon some undecomposed subcarbonate of potassa mixed with the hydrate of potassa I employed, as the subcarbonate of potassa is decomposed by iodine and carbonic acid set free, I had not thought it probable

bable that the subcarbonate of potassa could interfere with this result. But I find that if the subcarbonate exist at all in the lixivium, a portion of it always remains undecomposed. I find likewise, that, when a solution of iodine in lixivium of potassa is rendered perfectly neutral, or even slightly acid by hydriodic acid, a strong red heat renders the solid substance obtained slightly alkaline, provided it be in contact with air. Whether the separation of iodine by oxygen, in this instance, depends upon some effect of the moisture contained in the atmosphere, or upon the continued action of fresh portions of oxygen on the same surface of the compound, it is not easy to say; but a similar effect I find is produced upon *potassile*, (fluate of potassa;) this substance gains the power of reddening paper tinged with turmeric, by being strongly heated in contact with the air.

The power of neutralizing acids does not belong to the true compound of iodine and potassium, but depends either upon the subcarbonate not decomposed, or upon the alkali formed during the ignition of the compound; the pure double compound seems to have no power of action on the acids it does not decompose; I fused it in contact with sulphurous acid gas confined by mercury in a glass tube, the salt gained a slight tint of yellow, but did not absorb its own volume of gas: after this, it slightly reddened litmus, so that the acid must have had little more than a mechanical adhesion to the salt.

When *potassame*, or iode of potassium, is fused with boracic acid, there is a perfect mixture of the two bodies. In my first researches on this mixture, I conceived that they entered into chemical union, and formed a violet-coloured glass, and that the acid property of the boracic acid was neutralized by the new compound; but I since find that the violet colour of the glass is owing to the development of iodine, and when the application of heat is long continued, much iodine is disengaged, and the colour of the glass changes to olive, and borate of potassa is formed. When the glass is dissolved in warm water, an olive-coloured power separates, soluble when boiled in the caustic alkalies, so that there is great reason to suppose that it is boron, and that the boracic acid is decomposed by the attraction of the potassium combined with the iodine for oxygen, assisted by the tendency of iodine to assume the elastic state.

I fused the neutral compound of iodine with silica; no change was effected when the experiment was made in close vessels, but when the mixture was exposed to air, and intensely heated, a little iodine was evolved, some potassa formed, and some silica dissolved by it.

On other acid Compounds of Iodine.—I have made several experiments on the combination of iodine and chlorine, obtained by admitting chlorine in excess to known quantities of iodine in vessels exhausted of air, and repeatedly heating the sublimate.

Operating in this way, I find that iodine absorbs less than one-third of its weight of chlorine.

The compound of iodine and chlorine is a very volatile substance, and, in consequence of its action upon mercury, I have not been able to determine the elastic force of its vapour. Hence the estimations of its composition from experiments on the quantity of chlorine absorbed in close vessels must necessarily be liable to error. In one experiment, in which I dissolved the sublimate, by admitting a small quantity of water into the retort, I found that eight grains of iodine had caused the disappearance of five and a quarter cubical inches of chlorine.

In another experiment, in which the sublimate was not dissolved by water, and in which the absorption was judged of by the admission of fresh quantities of the gas, twenty grains caused the disappearance of 9·6 cubical inches of chlorine, and the barometer being at 30·1, and the thermometer at 57° of Fahrenheit.

It seems probable, from these experiments, that the chlorionic acid consists of one proportion of iodine and one of chlorine.

The chlorionic acid formed by the sublimation of iodine in chlorine in great excess is of a bright yellow colour, when fused it becomes of a deep orange, and when rendered elastic it forms a deep orange-coloured gas. It is capable of combining with much iodine when they are heated together, its colour becomes in consequence deeper, and the chlorionic acid and the iodine rise together in the elastic state.

The solution of the chlorionic acid in water likewise dissolves large quantities of iodine, so that it is possible to obtain a fluid containing very different proportions of iodine and chlorine.

The pure solution of the chlorionic acid, when it is very diluted, loses its colour by being agitated for some time in contact with chlorine, and then, when poured into fixed alkaline lixivia or solutions of the alkaline earths, it causes the precipitation of substances having the characters of triple compounds of the oxyiodes. If it is coloured, or in its ordinary state, at the same time that the oxyiode is precipitated, much iodine appears, and it is impossible to render a *concentrated* solution colourless by agitation with chlorine, or to deprive it of its power of yielding iodine by acting on alkaline solutions. The chlorionic acid, when poured into a solution of muriate of baryta, causes a copious precipitate in it, which has all the characters of oxyiode of barium, and the liquor becomes very acid.

When the colourless solution of chlorionic acid is added to a strong solution of ammonia, a white powder is precipitated which detonates feebly by a gentle heat; and which, when decomposed in glass vessels, affords iodine and elastic matter which does not support combustion.

When highly-coloured chlorionic acid is employed, the powder that falls down is black, and detonates with much greater force, and by the slightest touch or motion, and it appears to be the same substance as that procured directly by the action of iodine on ammonia, and which I have shown to be a compound of azote and iodine. Whether the white powder is a similar substance containing

taining a larger proportion of azote, or whether it is a compound of ammonia with oxygen and iodine, or with iodine and chlorine, I have not yet been able to determine.

It is soluble in excess of chlorionic acid, and in this way may be separated from the black powder; it affords a little moisture during its detonation, but it is not possible to say whether this is formed in the process, or whether it is water adhering to the compound, for the temperature of its decomposition is so low, that a proper degree of heat cannot be applied to render it dry.

When two bodies so similar in their characters and in the compounds they form, as iodine and chlorine, act upon substances at the same time, it is difficult to form a judgment of the different parts that they play in the new chemical arrangements produced. When I found that the chlorionic compound formed a strong acid by solution in water, I at first suspected that water was decomposed, and hydroionic acid and euchlorine formed; there was no effervescence in the process, and the proportions agree with the supposition; but I find that solution of euchlorine instantly decomposes hydroionic acid and precipitates iodine, which is afterwards redissolved by the chlorine set free; and nitric acid, which decomposes hydroionic acid, has no action on chlorionic acid.

It was possible likewise, that if water was decomposed, muriatic acid and a compound of iodine and oxygen might exist in the solution; I endeavoured to ascertain if this was the case by distilling the solution at different temperatures and collecting the products, but I obtained always the same fluid.

When coloured solution of chlorionic acid is boiled with hyperoxymuriate of potassa, it loses its colour, and chlorine is given off from it; but in this case it likewise gradually loses its acidity, and a substance which yields iodine by heat with much effervescence, and which is probably oxypotassame, is precipitated.

It appears to me most probable, that the acid property of the chlorionic compound depends upon the combination of the two bodies; and its action upon solutions of the alkalies and the earths may be easily explained, when it is considered that chlorine has a greater tendency than iodine to form double compounds with the metals, and that iodine has a greater tendency than chlorine to form triple compounds with oxygen and the metals.

When in the case of the action of the chlorionic compound on fixed alkaline lixivia the chlorine is not in great excess, much iodine is always set free, because as it is easy to perceive from the proportions in which they combine, there is not sufficient oxygen detached from the alkali by chlorine to form the triple compound; and if the estimation of the composition of oxypotassame given in the first section be accurate, supposing that none of the double compound of iodine is formed, a solution must contain five proportions of chlorine to one of iodine, to produce a triple compound without the precipitation of iodine. It is however most probable, that some double compound of iodine is always formed, as a solution

tion must be extremely diluted indeed to contain five proportions of chlorine to one of iodine.

When the solution of chlorionic acid is poured into solution of muriate of baryta, water must be decomposed to furnish hydrogen to the muriatic acid, and oxygen to the triple compound, and in this case some double compound of iodine and barium must be formed and remain dissolved in the solution.

From the action of chlorionic acid on metallic solutions, I am inclined to believe that triple compounds of the common metals, oxygen and iodine may be formed by means of it. It occasions a copious precipitate without effervescence in the solution of sulphate of iron, and in the solution of nitro-muriate of lead, and tin, and of nitrate of copper, and from analogy it is probable that these precipitates consist of the metal, oxygen, and iodine.

I thought it probable from the rapid action of tin on iodine, that tin-foil would burn in the vapour of iodine; but on introducing it into the violet-coloured gas in a small retort made very hot, though the combination was instantaneous, yet no light was apparent.

I thought it possible that the acid properties of the compound of tin and iodine, which I have described in my last communication to the Society, might depend upon the decomposition of water and upon the formation of hydroionic acid. On this idea I distilled the solution of it in water, hoping, if hydroionic acid were formed, that I should obtain some in this process; but the fluid that came over was merely water coloured by a minute quantity of iodine, and the orange-coloured substance which remained when dissolved in water, exhibited the same acid properties as before, and combined with ammonia without affording any oxide.

The compound of iodine and iron when dissolved in water exhibited acid properties, but when the solution was distilled it yielded hydroiotic acid and deposited oxide of iron, and the entire solution acted on by ammonia, afforded an olive-coloured precipitate in great abundance.

On the Action of some compound Gases on Iodine.—I heated some iodine in a dry glass globe filled with sulphuretted hydrogen; there was a considerable absorption of gas, no sulphur was deposited, and a reddish-brown fluid was formed, which when thrown into water rendered it strongly acid, and deposited much sulphur; the water passed through a filter exhibited the properties of hydroionic acid.

It is evident from this experiment, that sulphur, iodine, and hydrogen, are capable of forming a triple compound.

I sublimed some iodine in dry olefiant gas; a little of a reddish-brown fluid was formed, but the greatest part of the iodine crystallized on the sides of the vessel in which the experiment was made. By repeating the process several times, more of the fluid was formed. It was volatile at a moderate heat, and gave a yellow tint to water, but did not render it acid, there was a very slight absorption of the gas.

Iodine sublimed in nitrous gas effected no change in it.

When iodine was exposed to carbonic oxide it underwent no change, it was repeatedly sublimed in it in common day-light without undergoing the slightest alteration.

When the violet gas was formed by heating iodine in carbonic oxide, and the vessel exposed for some time to the direct solar rays, a small quantity of a limpid fluid which had an acrid taste formed in the vessel. An accident prevented me from ascertaining if any gas had been absorbed, but it seems probable from this result, that, like chlorine, iodine may be combined with carbonic oxide by the agency of light.

On the Mode of detecting Iodine in Combinations, and on certain Properties of its Compound with Sodium.—I have examined many of the marine productions of the Mediterranean, with the view of determining whether they contained iodine. The ashes of the fuci and ulvæ of this sea afford it in much smaller quantities than the *sel de varec*, and in a very few cases only have I been able to obtain evidences of its existence in them.

M. Berard was so good as to order a considerable quantity of the species of ulva, which abounds on the coast of Languedoc, to be burnt for me at his laboratory of Montpellier. The ashes consisted for the most part of common salt, but a small quantity of alkaline lixivium which was obtained from them, afforded a red fluid when acted upon by sulphuric acid, and a similar colour I found was produced, when a solution of subcarbonate of soda and common salt, containing a minute quantity of the compound of sodium and iodine was treated in the same manner by the acid.

One of the best tests of the presence of a very minute quantity of iodine in compounds, is their action upon silver. Water when it contains less than $\frac{1}{1000}$ part of its weight of the double or triple alkaline compounds of iodine tarnishes polished silver.

The effect produced by compounds of iodine may be distinguished from that produced by sulphurets or sulphuretted hydrogen by this circumstance, that solutions containing sulphurets or sulphuretted hydrogen, by being boiled with a little muriatic acid, no longer tarnish the metal, whereas solutions containing iodine still retain the power.

Amongst a number of sea weeds that were obligingly given me for examination, by Professor Viviani, of Genoa, the ashes of the following afforded slight indications of the presence of iodine:

Fucus cartilaginous.	Fucus filamentosus.
—— membranaceous.	Ulva pavonia.
—— rubens.	—— linza.

In the ashes of the corallines and sponges, I could discover no evidences of the presence of the substance.

I have examined three specimens of alkali formed by the combustion of vegetables that grow on the sea shore, one from Sicily, one from Spain, and the third from the Roman states, but not one of them afforded any indications of the presence of iodine.

I evaporated a considerable quantity of sea water procured at Sestri of Levanto in Liguria, in a part of the bay remote from any source

source of fresh water; but I could gain no unequivocal evidences of the presence of the compounds of iodine in it. The residual liquor after the common salt had been separated, did not act upon silver, nor colour sulphuric acid. The first crystals of salt which fell down when fused upon silver, appeared me to tarnish it more than the last; from which it appeared probable that they may have contained some triple compound of iodine, yet after being ignited, they did not colour sulphuric acid. When a large quantity of this water was electrized by a Voltaic apparatus, and the products separated at the positive pole collected in a small cup of gold, which was covered with cement, except in the interior and lower part forming the circuit, a yellow solution was obtained, which when it was exposed to the negative pole of a Voltaic apparatus, yielded a black powder fixed in the fire, and not unlike the compound formed by heating gold and iodine together; but the quantity was too minute to admit of analysis, and a dark-coloured substance is likewise obtained by negatively electrifying oxymuriate of gold, and there can be no doubt but that this substance formed a principal part of the solution.*

If iodine exists in sea water, which there is every reason to believe must be the case, though in extremely minute quantities, it is probably in triple union with oxygen and sodium, and in this case it must separate with the first crystals of common salt.

Whether the superiority which the curers of fish and meat are in the habit of attributing to bay-salt over rock-salt, is at all connected with the presence of the compounds of iodine, is an inquiry perhaps worth making; and the results of Dr. Henry's elaborate investigation of the composition of different kinds of salts, do not preclude the possibility of the circumstance, though they certainly diminish the probability.

I rubbed pieces of beef that had been killed some days, with the double and triple compounds of sodium. They did not putrify; the one rubbed with the double compound became very tender and soft, and of a red-brown colour; that exposed to the triple compound hardened considerably, and became of a paler colour.

The triple compound has very little taste, and neither of the compounds seems to have any pernicious quality when received into the stomach. I fed a goldfinch with bread soaked in water, holding in solution the double compound for two days, and he drank water holding in solution the triple compound for three days, without apparently suffering any inconvenience.—*Phil. Trans.* 1814. *Part II.*

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* Iodine, like chlorine, combines both with gold and platinum, when heated with them, or when they are exposed to them in its nascent state.

CRITICAL

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Pathological Researches.—Essay I. On Malformations of the Human Heart: illustrated by numerous Cases, and five Plates, containing fourteen Figures, and preceded by some Observations on the Method of improving the Diagnostic Part of Medicine. By J. R. FARRE, M.D. 8vo. pp. 46.

(Continued from p. 517.)

WE resume with pleasure our notice of this valuable work. The next variety which the author describes is "I. 2. *d. Ostium Arteriæ Pulmonalis communicating with both Ventricles.*"—This is a rare malformation; the cases of it detailed by Dr. Farre, are furnished by Mr. A. Cooper and Mr. English. Two plates illustrate the disease.

"I. 2. *e. Dilated Foramen Ovale, and contracted Ostium Arteriæ Pulmonalis.*"—Of this variety the author only notices two cases: one of them is related in the 17th Letter of Morgagni, art. 12, 13; the other in the 6th vol. of the Commentaries of the Academy of Sciences at Bologna, and is also translated in the 6th vol. of the London Medical Journal.

"I. 2. *f. Dilated Foramen Ovale, with an Open Ductus Arteriosus, and Impervious Ostium Arteriæ Pulmonalis.*"—Although this variety is more frequent, the author has not alluded to any case in his own practice. He refers, however, to one published by Dr. W. Hunter in the Medical Observations and Inquiries, vol. vi. p. 291, and by Mr. Hodgson, in the 5th vol. of the London Medical Review.

"I. 2. *g. Perforation of the Septum Ventriculorum.*"—Described by Dr. W. Hunter and Corvisart.

"I. 2. *h. Ostium Aortæ communicating with both Ventricles.*"—This variety is not very rare; the author has enumerated several cases of it from Abernethy, Cooper, Corvisart, and other writers. The only case which he details from his own observation is the following.

"A female infant, four weeks old, was brought to me at the London Dispensary, Artillery-street, in the month of April 1809. The colour of her skin was blue, and as often as she cried, which happened whenever she was moved, the colour became very dark. Being well clothed, her skin was of a good warmth; but her mother assured me that she chilled fast, and that it was very difficult to

keep her warm. Her respiration was short, but not very laborious. The umbilicus was ulcerated, and the surrounding integuments were inflamed. Under one of her arms, an ulceration of the skin, tending to gangrene, had taken place. The functions of the alimentary canal were badly performed, and her feeble powers were wasted by a diarrhœa. She lived only a week longer.

"*Dissection.*—The septum ventriculorum was perforated; the aorta arose from both ventricles, and was dilated; the pulmonary artery was imperforate, and as far as its bifurcation, and its branches received their blood from the aorta through the ductus arteriosus. The right auricle and ventricle were larger than the left."

A neat figure gives a tolerable representation of this variety of imperfect structure.

"I. 2. 1. *Transposition of the Aorta and Pulmonary Artery.*"—Several cases of this singular variety are related, and this portion of the essay concludes with some observations on the symptoms of malformations of the heart, and on the temperature of persons with malformed hearts, that will be perused with peculiar interest. The subjoined extracts will fully evince the author's talent for observation, and demonstrate the utility of his investigation.

"1. *A permanent blue colour of the skin.*—The blue approaches to a black colour in proportion to the diminished size of the pulmonary artery, and of the ductus arteriosus. It affords a sign of the first species of malformation of the heart, or that which mingles black with red blood, being present in a very large proportion of these cases; but it has already been proved, that malformation may exist although this sign be not present. See I. 1. *a.* and *c.* Another exception occurs in the second example of the variety, I. 2. *d.* The patient's skin was always very pallid. From these exceptions we learn, that if the *full* proportion of blood be circulated through the lungs, although the red blood be subsequently mixed with an equal proportion of black blood in the heart, yet a black colour will not be imparted to the skin. The fact, at present, applies only to the infant. Evidence is wanting to prove its application to the youthful and the adult state.

"In difficult transmission of blood through the heart, or its vessels, especially its pulmonary branches, the skin is pallid, transiently livid, of a violet colour, or permanently blue, according as its capillary vessels are more or less completely filled, but chiefly in proportion as the circulation is retarded through the lungs. The same effects are produced by whatever diminishes the capacity of the air cells in a remarkable degree. It is certain, however, that the peculiar blue colour of the skin, which has even given a name to those who have malformed hearts, is far more characteristic of mingled black and red blood, the former being in excess, than it is of an impeded circulation, and constitutes the most material part of the diagnosis.

"2. *Cold.*

"2. *Coldness of the Skin.*—This sign naturally follows the blue colour of the skin, as both are produced by an over proportion of black blood. It may be worth the trouble of reconciling the contradictory evidence respecting this sign, by tracing the variation in the structure, by which the difference of temperature may be justly explained. If the reader will examine *d.* and *e.* in figure 3, and compare them with *b.* and *g.* in figures 12, 13, 14, he will perceive that signs of a diminished temperature at the surface of the body were manifested in proportion as the pulmonary artery, or, in the event of the obliteration of that artery, the ductus arteriosus, diminished in size; and that it was sensibly least in the example in which the ductus arteriosus was smallest. If, in I. 1. *b.* and in the second example of I. 2. *f.* the observations respecting the external temperature of the body be correct, it would appear that there is an over proportion of black blood, which gives the first sign—a permanent blue colour, without manifesting, in the infant state, the second sign—a coldness of the skin. Although this observation needs farther proof, it is certain, that a still greater excess in the proportion of black blood, as in some of the cases above referred to, affords both signs in a striking degree. The evidence of this fact will also be found in all the examples of I. 2. *i.*

"3. *Paroxysms of irregular respiration—of screaming—of panting. Respiration, remarkably quick—continually difficult or laborious—sense of suffocation—cough.* The disturbed state of the breathing by paroxysms, seems to be more characteristic of mingled black and red blood; but the dyspnœa, of difficult transmission of blood through the heart and its great vessels.

"4. *Palpitation—vehement action of the heart—pulse irregular, quick, and weak—intermittent. Serous effusion* into the cavities and cellular membrane, manifested by œdematous legs and bloated face. *Hæmorrhages* from the nose, gums, lungs, &c. These signs, varying in degree, and more or less combined, are found in many cases of malformation, and are indicative only of an impeded circulation.

"5. *Torpor of the Brain—Epilepsy—Apoplexy—Paralysis—Syncope.*—These effects are to be attributed partly to an impeded circulation through the heart, to the accumulation of blood in the brain, and the consequent pressure sustained by that organ, and partly to the want of those renovating powers which red blood may impart to the brain.

"6. *Defective Nutrition.* This effect varies in degree from the slender to the emaciated figure, according to the condition of the alimentary canal and its dependant organs; for in some there is too little appetite, in others too much;—in some, constipation; in others, diarrhœa. But, if the natural functions be tolerably well performed, and the due proportion of chyle absorbed, it is not unreasonable to expect an accumulation of adipose matter in a subject whose circulation is disturbed or impeded, whose blood cannot always warm the surface of his body, and whose nervous system is

without energy. Such was the actual condition of the boy whose case was recorded by Dr. Richard Pulteney, and whose figure must have been the reverse of that which Dr. Hunter, in a peculiar but forcible manner, thus described: 'If a man had never seen any of the canine species but the bull-dog, for example, he would be much struck at the first sight of the slender and delicate Italian greyhound. This young gentleman's figure put me in mind of that animal; and, when I looked upon his legs particularly, I could not but think of the limbs of a wading water-fowl.'

"The *almost sudden* extinction of life in man, and other warm-blooded animals, by the various accidents which suspend respiration, is not fully explained by saying that the source of heat is cut off, and the excretion of a matter deleterious to the system is interrupted. Other circumstances contribute to that event, the most important of which, it is probable, remains unknown; but there is one, which, without insisting too strongly on its importance, is yet very worthy of being noticed, because it may serve to guide our judgment in cases of malformation of the heart, where the diagnosis becomes more than usually difficult. I mean the association which exists between the action of the heart, and the action of the muscles of respiration. The suspension of the latter must materially derange the former. But these associated motions are reciprocal, so that any remarkable imperfection in the functions of the heart will also be generally attended with a disordered respiration: thus, in I. 1. *a.* and in the third case of I. 2. *c:* in which neither a blue colour, nor a coldness of the skin, were remarkable, the peculiarities of their respiration marked the malformation of their hearts.

"Finally, on the subject of mingled black and red blood, it is expedient to direct the attention of the profession to the following desiderata:—1st, The accurate measurement, by the thermometer, of the *internal* and external temperature of the patients. The former may be done by placing the bulb of the thermometer under the tongue, or, more conveniently in infants, by introducing it into the rectum, as Dr. Baillie long ago suggested. In the cases which have already been communicated to the profession, as well as in some of those which are here added, we have, as it were, with one consent, neglected this important experiment. In one instance, however, of a lady whose skin suddenly became and remained permanently blue, from a lesion, as it was supposed, of the septum of the heart, Mr. Astley Cooper ascertained that her internal temperature was 100 degrees, whilst her extremities were sensibly colder than natural. This interesting observation supports the result of the experimental inquiry on this point by Mr. Coleman, which he published in his valuable work on Suspended Respiration, and invites farther investigation. 2dly, The quantity of carbonic acid gas which may be formed by the subject of a malformed heart, during successive acts of respiration in a determined period, compared with the quantity formed by a perfect subject of like age and figure.

This

This experiment will be far more difficult than the former, and its result must be more dubious; but, if it can be made with any tolerable approximation to the truth, it is expected that it will furnish an interesting fact, especially in those patients whose skins are permanently blue and easily chilled."

We have now to notice the second species, or MALFORMATIONS OF THE HEART, OR OF ITS ARTERIES, ONLY IMPEDING THE CIRCULATION OF THE BLOOD.

"II. *a. Left Ostium Ventriculi contracted, and Mitral Valve rigid.*"—The author is not quite decided whether to assign such appearances to malformation, or to disease. Mr. A. Burns has described the variety as a species of malformation, and Dr. Farre, who does not seem fond of forming his judgment on slight grounds, seems inclined to admit this opinion, until he obtains further evidence on the subject. The case related by Dr. F. was published, with some others, by Mr. Burns, in his treatise on Diseases of the Heart.

"II. *c. Ostium Aortæ narrowed by having two instead of three Semilunar Valves.*"—This variety is very uncommon; we have therefore pleasure in transcribing the following interesting case of it.

"Mrs.———, aged 24, a delicate woman, of the middle size, eight months married, in the eighth month of her pregnancy, died suddenly on Wednesday morning, the 27th of May, 1812. Mr. Saner, who resided on the spot, instantly attended. He found her countenance suffused and very livid, but she was already dead. On the 28th, twenty hours after her death, Mr. Saner favoured me with the opportunity of conducting the dissection, which was done with the assistance of himself and Mr. J. Burrows.

"The brain, minutely examined, presented only the natural appearances. The longitudinal and lateral sinuses of the dura mater were rather more turgid with fluid blood than they usually are.

"The heart had the parietes of its left ventricle much thickened, and the valves of its aorta malformed. Two, instead of three semilunar valves, had been formed, and these were so united as to constitute one membrane, having an oval aperture in its centre. Ossific matter was deposited on the surface of the valve next to the ventricle. A moderate quantity of serum, tinged with red particles, was found on both sides of the chest. The lungs were sound.

"The viscera of the abdomen were in a natural state. The uterus had contracted just below the umbilicus: to its internal surface the placenta and membranes yet adhered. The fœtus had been turned and extracted by Mr. Saner immediately after the mother's death. Although this humane effort to preserve its life was not crowned with success, the circumstances of the case being unfavourable, yet the attempt merits praise. Such an effort is not incompatible even with a trial of means for restoring animation to the

the mother. The Cæsarian section, for the preservation of the infant, ought only to be used when the mother has suffered a violent death.

"I was informed, by her husband, that he had been acquainted with her only twelve months previous to their marriage. During that period she could never bear quick motion. Since marriage, he had observed, besides a difficulty in her breathing, frequent palpitation: he could even hear her heart beat as he lay beside her. The dyspnœa had so much increased during her pregnancy, that at night he had been obliged to carry her up-stairs to bed. Mr. Smart informed me that he had attended her for symptoms of pneumonia, a few months before her death; but he did not, at that time, remark any peculiarity in her pulse."

The essay terminates with some short but feeling remarks on diminishing the sufferings of patients in cases of malformation where the cure is hopeless. We have little doubt that, as the author's experience accumulates, he will be enabled to arrive at some degree of certainty in what he now proposes as hints rather than as axioms. The chief means in our power, at present, are temperature and posture; both of which in some cases may be so regulated as to lessen pain and prolong life. The second and third essays, which we hope will shortly come before the public, will treat of inflammation of the heart, both in the acute and chronic form, when the author will find a more ample field for considering the effects of difficult transmission of blood through the organ.

The Morbid Anatomy of the Brain in Mania and Hydrophobia, with the Pathology of these two Diseases, as collected from the Papers of the late Andrew Marshal, M.D. many Years Teacher of Anatomy in London; with an Account of some Experiments to ascertain whether the Pericardium and Ventricles of the Brain contain Matter in a State of Health: to which is prefixed, a Sketch of his Life. By S. Sawrey, Member of the Royal College of Surgeons, formerly Assistant-Lecturer to Dr. Marshal.—8vo. pp. 294. Longman and Co. London.

The memoirs of every public character are interesting. Those presented to us of Dr. Marshal are particularly so, as they describe a character exactly similar to his external appearance and habits. The first paragraph of Mr. Sawrey expresses this much better than we can do.

"The life of Dr. Marshal does not present any of those incidents which give interest to biography. It had no romantic adventures, nor was it checquered by any singular misfortune; it

was

was the life of a man of original genius, emerging, unassisted, from his native obscurity, quietly and unostentatiously maturing himself by studies and meditations unknown to the world: long hesitating in the choice of a profession; beginning late, but pursuing it, when decided upon, with all that force of mind and enthusiasm which make difficulties but the means of increased progress. At all times rather shrinking and secluding himself from public notice, than ambitious of notoriety, and yet calmly and steadily advancing to knowledge and reputation; so that he was enabled to meet the decline of life with a competence satisfying all his wishes, and with high professional respectability."

Dr. Marshal, it appears, was the son of a farmer in Fifeshire, and seems always to have been passionately fond of rural scenery. Probably he would have become a practical farmer, but that, like Burns, he soon found the impracticability of struggling against oppressive rents in a country which requires constant labour. The gravity of his temper was, perhaps, the only reason why he pursued a more even tenor; and by dint of industry and economy procured a very moderate independence in the decline of life.

"Merely," says he, as appears by his own MS. "from seeing the flocks and herds of my father, and the beautiful scenes of a rural life and business, I remember to have said in a moment that I would be a farmer, and give up school. My father immediately complied with my wish, but as I was only fourteen, he sent me a winter more to school to learn arithmetic. I deceived myself in this too, for I learned very little. My old Latin master was dead; a new one had succeeded, but his method was not the best.

"I returned home from Abernethy, and soon began to be a young farmer, working, ordering, &c. I took an infinite interest in some of the individuals of our cattle. I had great pleasure in seeing the mare and foal put on good grass, and the calves well fed, &c. But my father being obliged to give up his goods, from misfortune, when I was about sixteen, I became tired of farming, hurt at the disaster I saw befalling my father's interest.

"I resumed the study of Latin, and applied to it with some attention, being resolved to be a seceding minister; and feeling myself gifted in the ability of saying grace and prayer.

"I studied Latin again in Mr. Buchanan's school in Cairny-hill, and went thence to be examined at Culfargie and to be passed as a student of philosophy at Abernethy. I passed, and studied logic there under Mr. Pine. The logic was an old MSS. of St. Andrew's system. I learnt every word of it by heart, and became master of genus, species, syllogism, &c. I received more benefit from this winter than I have ever done from any other learning.

"There was another examination for students of divinity at Alloa. The first examination was in Latin, in Virgil, Book II. of the Æneid; the next was in practical religion. I gave an account of my conversion.

"About this time I taught school at Limekilns. I was charmed with the romantic scenes of nature, and was always enjoying them in solitude. I was ignorant how to get or how to keep money.

"About this time I wrote an Essay on Ambition, which was published in the R—— Magazine, and an Essay on Composition, published in the British Magazine. In this last I animadverted on an expression of a seceding minister—'O now we conclude.' For publishing this essay I was summoned to the synod at Edinburgh, and excommunicated.

"All this time I was so struck with the appearances of Nature, that to get settled and provided for was a subject which never came into my head. I passed one year wandering along the banks of the Forth; another along those of the Tay; astonished at every new scene of the country; fond of reading; not perfect in the Latin, yet admiring its composition.

"Having been to Glasgow with my brother William, on his way to America, I returned, and was presented with a guinea at Greenock, from Mr. Simson, for pleasing him in prayer.

"I then formed a blind design to go to Glasgow, and to leave my father's and the Limekilns. There, with my sister Ann, I kept house, and taught school; attended College, particularly Dr. Reid; and I studied Greek privately. I was introduced to Dr. W., who took little notice of me, but took my money. I also studied mathematics.

"After two years residence there I went by Dr. Reid's recommendation to be tutor to a family in Islay. Before I set out I had a fever in Glasgow. The symptoms were, great alteration in sense, weakness, sickness, and bad dreams. On my way to Islay I was struck with the appearance of the west coast. I was entertained by an highland laird. After being settled I became unaccountably hoarse, and much weakened. After the fever my complexion became unduly vivid.

"I was at Islay four years; little to do; striving to instruct unmanageable children. I was out of the world—nearly out of existence. I read some Latin by dictionary and grammar; read eight books of Livy, and wrote sonnets—Dear Rocks of Islay! Here I used to wander in solitude, admiring the ocean, the beach, and the islands scattered around.

"By this time I was not less than twenty-five years old. I left Islay, and was, as before, without any rational prospect of a better situation. I went to Edinburgh with my pupil. I did my utmost to instruct him and to save his father's money. I carried him back in the summer.

"I returned and subsisted by reading Latin and Greek with the students, privately. I attended the physical classes from curiosity. In 1769, I attended Dr. H—, as a student of divinity, which was my profession at Glasgow too. I was of the Divinity Hall when I delivered two discourses,—both barren of knowledge. I gave also a discourse at the Divinity Hall of the Seceders. I got reputation at Edinburgh for Greek. I was regularly studying new and difficult subjects; never engaging myself."——

"In

"In 1770 we find him engaged in private correspondence with the present Dr. Young, who was afterwards appointed Professor of Greek in the University of Glasgow, on the Greek language. He was then twenty-eight years old; and at this period he was thus esteemed by his literary friend:—

"'Your correspondence, my dear sir, will be extremely agreeable, and the more so as we shall converse without restraint or ceremony. You need not to have told me you can be faithful; I was convinced of that before. It is written in large characters, not in your letter (for there the characters are but dwarful), but in your face, your actions, and I presume somewhere else, which it is often difficult now-a-days to see. I have no mind to turn panegyrist; it is but a poor trade; but therefore I say, gratis, you have that in you which I think I can love,'" &c.

"The letter containing these passages is dated July 19, 1770, and is addressed to Mr. Marshal, student, at Mrs. Martin's, in Lady Stair's Close, Lawn Mercat, Edinburgh.

"From another letter of Dr. Young's, dated August of the same year, we have some intimation of Mr. Marshal's studies at that time.

"'Your metaphysics upon time, place, associations, trees, ideas, and islands, have raised you several inches in my estimation. As far as I can judge they are perfectly orthodox, and consonous to right reason. But, to be serious, you have certainly gone the true way to work. There is no doubt but language has its principles, and the more any one understands of it the more reason he finds to be convinced that it is so. The terms 'caprice of language' flowed originally from a weak noddle. These very caprices have their principles, and principles not incapable of investigation,'" &c.

We shall hereafter make further remarks on Dr. Marshal's metaphysics.

After this it appears that Mr. M. made a tour on the Continent as travelling tutor with Lord Balgonie, eldest son of the Earl of Leven and Melville. Before this time he had turned his attention to medicine, but did not seriously undertake it till about the year 1776: that summer he studied botany in Scotland, and in the following year arrived in London, to have the advantage of attending the lectures of the two Hunters. In 1778 he was appointed, by the interest of his noble pupil, surgeon to the 88th regiment, in which station he acquitted himself with judgment, fidelity, and industry. During this time he procured his degree from Edinburgh, having sent in an inaugural dissertation, "De tuenda salute militum."—Why does not the present compilation contain Dr. M.'s practical opinions on so important a subject?

After the peace of 1783, the regiment being disbanded, Dr. Marshal settled in London, by the advice and under the auspices of Dr. David Pitcairn, at that time physician to

St. Bartholomew's Hospital. There was then no teacher of any description at that house, if we except the gratuitous lectures on surgery given by Mr. Pott. Dr. M. met with ample encouragement as an anatomist; but from the deficiency of his voice it was a long while before he ventured to lecture. Probably he never was conscious of this defect himself, but was restrained at first only from a certain backwardness at extempore speaking, which was likely to attend one who commenced teaching at so advanced a period of life. At this time it seems to have been his intention to have practised surgery. No town practitioner will be surprised that he altered his resolution: surgery by itself, without the advantage of a hospital, is a bold undertaking for a stranger. At that time too Dr. Pitcairn had not gained that eminence by which he might have secured the success of his friend in a different department of medicine; nor indeed would it have been quite decent to have patronised a stranger to the disadvantage of his colleagues at St. Bartholomew's. In 1788, therefore, Dr. Marshal produced his degree, and procured his licence from the London college. Dr. M. had scarcely established his school in the neighbourhood of St. Bartholomew's, when the medical men of that venerable institution began to think it high time to erect something like a school within its walls. They could not but feel the decline of their emoluments, by the diminished number of pupils who were driven to other hospitals for the convenience of their respective classes. About this time too, Mr. Abernethy having completed his apprenticeship under Mr. Blicke, and showing talents well qualified for a public teacher, was fixed upon at an early age as the first lecturer in a newly-erected theatre. The following is Mr. Sawrey's account of this event:

"Some time after this, it was proposed by some mutual friends, that Dr. Marshal should allow Mr. Abernethy, then a rising and aspiring young man, to join him; to which intimation Dr. Marshal remarked,—'This will reduce me to a situation worse by half than that which was held out to me at first. I have embarked all my resources, and committed my reputation on this business, and by my industry I have attained some footing in it; and now I am to divide what is hardly enough when entire, and which I have laboured hard to enjoy entire.'—Thus considering it, no one will be surprised to find that Dr. Marshal declined the proposed partnership."

We shall at present make no comments on this subject, reserving them for our general observations on the character of Dr. M. He continued to lecture till the year 1800, when ill health, we are told, and probably it might be added increase

crease of professional engagements, induced him to decline. He continued his practice with some interruptions from want of health for thirteen years more, when his constitution gave way to repeated attacks of a complaint very common at that age, and more frequently, it has been remarked, attacking literary and sedentary people.

"His health," says his biographer, "became gradually, but perceptibly, weak and precarious, for several years before his death, so that his friends had frequent cause of alarm, before the attack of the disease which proved fatal. For some time he had a disturbance in the urinary organs; but in July, 1812, the symptoms became more urgent; the micturitions were frequently painful and peremptory, excited upon trivial occasions, especially at night, breaking and disturbing his sleep. These symptoms were accompanied with frequent attacks of fever, which, as the complaint advanced, became more and more frequent and violent, until the day of his death, which was the 4th of April, 1813.

"During the period of this most painful illness, which Dr. Marshal supported with the greatest patience and fortitude, he constantly prayed for death, and looked forwards to it as his only remedy. To wish him better only caused him grief.

"One evening, when he was very ill, he asked the Editor, seriously, what he thought of the event of his disease. The Editor observed, that those frequent accessions of fever had certainly weakened him very much, yet he had shewn a strength of constitution, by getting rid of them, that induced some hope that the disease might get into a milder state, so that at least he might live in ease and a considerable degree of comfort. To which he answered,—'My dear sir, you distress me.'"

Such is the epitome of the life of an honest and enlightened man, we may add of a gentleman, and a scholar. But, in the description of his character, we have more of the composed feelings of resignation than of the active figure. That Dr. Marshal was an industrious anatomist, and a faithful teacher, cannot be questioned. If he was not perfect, he did not share more than the common failings of human nature. That there was something austere in his character, appears, we conceive, in all the more important transactions of his London life. Who but Dr. M. ever had a difference with Dr. D. Pitcairn? Why should he object to join Mr. Abernethy, whose youth, genius, and certain introduction into the hospital, must have secured a large school, of which Dr. M. would have probably shared the emoluments longer than he was enabled to sustain his own? His quarrel with Mr. Hunter was, we believe, at a period when the organic infirmity of the latter had rendered him highly irritable. There were probably faults on both sides: but

whatever failings of temper Dr. Marshal might be charged with, large allowances should be made for want of health, for the necessity of looking for the means of subsistence at an advanced age, and even for that unshaken integrity which is rarely attended with an over compliant disposition. A review of his posthumous works will be given in our next Number.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Volume the Fifth. 8vo. pp. 447.—Longman and Co. 1814.

THE volume opens with an account of some cases of Periodical Jactitation or Chorea, by Dr. Watt, of Glasgow. They differ in some respects from the complaint which is so well known by the name of St. Vitus's dance, although that term seems more apt for them, than for the affection which occasionally occurs in children in this country.

Dr. Denmark has contributed a case of Abscess in the Brain, which, being short, we shall transcribe.

"John Baynes, aged eighteen years, was admitted a patient of mine, from his Majesty's ship Fylla, on the 8th of last August, for inflammation of the right ear, attended with purulent discharge, but without fever. In the course of a few days the discharge ceased, merely by the use of purgatives and some topical lotions. On the 13th he complained of acute lancinating pain, confined chiefly to the top of the head, with a hard pulse, at about 100, and other symptoms of pyrexia. He was bled to 16 ounces, and had a purgative draught.

"14th. He had epistaxis during the night; the head-ache was relieved, but not removed; the tonge furred.

"16th. The symptoms continuing, the bleeding and purgatives were repeated.

"17th. After shaving the head I discovered a puffy diffused swelling over the whole of the right parietal bone. He recollects having received a blow upon the same part of the head, upwards of twelve months ago, with a piece of wood, which merely stunned him, without producing further subsequent inconvenience; but thinks the discharge from the ear might be dated from that period. Bleeding repeated.

"18th. A restless night with occasional delirium; white tremulous tongue; sense of chilliness; skin preternaturally hot; pulse 110; and hard tumour of the scalp not much elevated, but perfectly circumscribed and puffy, with acute pain on the slightest pressure. I made an incision through the tumour, five inches in length, down to the bone, when a very small quantity of pus issued. Several enlarged arterial branches were divided, from which be-

tween 20 and 30 ounces of blood were extracted, with the immediate effect of reducing the pulse in frequency, rendering it soft, and the patient tranquil and rational.

"19th. He slept a good deal during the night; the countenance was improved, and the delirium lessened.

"20th. Had a return of restlessness; the pulse was 90 and strong, and the wound in the scalp painful, with scarcely any suppuration. A purgative was given, and a blister was applied to the neck.

"21st. Was seized with convulsions last night, and has at present paralysis of the left arm, and retraction of the right angle of the mouth, with, at times, mild delirium; in the evening the bowels were open, but in other respects he continued the same.

"22d. Passed a restless night, but without convulsions; pulse nearly natural; a very trifling aberration of intellect; complains of head-ach, and the tumefaction of the scalp appears more general, retaining the impression of the fingers. The pericranium is now evidently detached on each side of the incision. I made a crucial incision across the sagittal suture, and downwards nearly as far as that of the squamous. I found the pericranium separated upwards of two inches; the bone was white, but seemingly deprived of nourishment, as no blood appeared on scraping it. The left arm was still paralytic—I applied the trephine close to the sagittal suture, and found the dura mater covered with pus, which also flowed through the suture during the operation. The discharge was so highly fœtid, as to be noticed by the patient, and seemed to be occasioned by a carious state of the diploë, which was somewhat black and much thickened. The operation was succeeded by a partial removal of the paralytic affection, and an alleviation of every bad symptom; in which state of amendment he continued until the 25th, when he was again attacked with fever, with full and strong pulse.—Had a bolus of jalap and calomel.

27th.—A restless night with occasional delirium; acute pain extending along the whole course of the spine, from the occiput to the sacrum; a thin purulent discharge, with a very unhealthy appearance of the dura mater.

"28th. Restless, with white tongue, hot skin, delirium, and torpid state of the bowels. Complains much of the pain in his back, especially on every attempt to move himself from the horizontal to the erect posture, when the pain is so acute as to make him scream out most violently: he describes it as darting from the sacrum to the back of the head. The bolus was repeated.

"29th. More sensible, but restless; cannot bear the smallest elevation of the trunk. An opiate was given at bed-time, and on the following day the purgative bolus was repeated.

"31st. Features shrunk; countenance lurid; lips purplish; eyes half closed and glossy; pulse small and indistinct, with low muttering. From this state he was roused in the course of the day by stimuli; but he relapsed into it, became delirious, was affected with

with subsultus tendinum, and porracious vomiting; and in this way continued until the evening of the 3d of September, when he died.

"*Dissection.*—The pericranium was detached from the whole of the superior part of the right parietal bone. During the sawing through the skull on the right side, several ounces of thin pus and bloody serum gushed out. On lifting the skull, a considerable quantity of purulent matter was found lodged between it and the dura mater, chiefly over the right hemisphere, but also extending for a short way over the left. This matter was traced downwards to the petrous portion of the right temporal bone, between the dura mater and skull, and appeared to have issued from a small circular ulceration of about two lines in diameter, in that membrane, immediately over the posterior lobe of the right hemisphere. This was confirmed by making an horizontal section of that lobe, two inches below its surface, which discovered an ulcerated cavity, one inch and an half in diameter, with indurated parietes, full of pus, and communicating with the aperture above in the dura mater. The form of this ulcer being that of a cone, or inverted funnel, seems to show that the ulcerative process commenced in the brain. There was another ulcer posterior to this, but it affected merely the cortical substance of the brain, and had not corroded its membranes. These were posterior to the perforation made by the trephine, through which the matter had free egress. On lifting the dura mater from the brain, there were adhesions, and a great quantity of pus between the right hemisphere and falciform process. This was accounted for by supposing it to be a part of that secreted in the ulcers before described, which, instead of passing through the eroded part of the dura mater, had pervaded the easier course between that membrane and the pia mater. The ventricles were enlarged, and filled with serum, which, from the appearance of these cavities, and of the plexus choroides, had not been long deposited there. The communication between the lateral ventricles, under the fornix, was large and distinct. There was pus lodged on the right side of the tentorium cerebelli; and the dura mater on the right temporal bone was detached, thickened, and diseased. The cerebellum was sound, but imbedded in thick pus, some ounces of which lay upon the dura mater, investing it, and consequently immediately in contact with its under surface. The adhesions of the dura mater to the foramen magnum were natural and firm; but the pus seemed to descend between that membrane and the medulla oblongata, which had lymph adhering to it, as had every part of the membrane described to have been in contact with pus: namely, the whole space outside the dura mater down to and over the pars petrosa of the temporal bone: and that which was inside the dura mater from the ulcers downward, along the right side of the falx to the tentorium, and extending on the inside of the dura mater, as far as the foramen magnum. It was a thick layer, not separable by simple ablution, but easily rubbed off with the fingers.

I now sawed out a piece from the bodies of the three lowermost lumbar

lumbar vertebræ, when, as I had anticipated, a quantity of pus flowed out from between the medulla spinalis and its membraneous investment; and still more copiously on raising the upper part of the trunk. Here the inside of the tunic also evinced the appearance of adhering lymph. There was no vestige of fracture in the skull, but the diploë of part of the right parietal bone was darker coloured than natural, and was somewhat thickened, as if undergoing incipient caries. The tables were sound.

"*Remarks.*—What appear to me as peculiarities in this case are, the supervention of disease at so unusually late a period as twelve months after the infliction of a blow, which at the time seemed to have occasioned very little inconvenience; the symptoms of inflammation commencing immediately after the cessation of the discharge from the ear, and the ulceration of the brain so quickly succeeding to this change; but, most particularly, the intolerable pain occasioned by the insinuation of the matter between the medulla oblongata and its investing membranes, down to the very extremity of the spine, a symptom, which, as far as I recollect, has not been hitherto noticed, and which, in this case, has been clearly manifested by the dissection. The pus between the cerebellum and dura mater was in considerable quantity, and after having found its way thither, obtained an easy passage onward; for I cannot suppose it was secreted there.

"The pathology of this case is more interesting than any practical inductions that may be drawn from it; because I believe its cure was beyond the art of surgery. On this point, however, I would beg to speak with great diffidence. Having copied the case from the notes taken at the bed-side, and endeavoured simply to delineate the appearances as they presented themselves on dissection, I am desirous of leaving all comments and deductions to my more experienced brethren."

Mr. R. Bampfield, surgeon of the royal navy, in a very ingenious essay, has described an affection of the sight, usually called Nyctalopia or Night Blindness, but which he more properly terms Hemeralopia. He divides it into species, idiopathic and symptomatic. It is common in tropical climates, and if not combated by remedies, frequently terminates in total blindness. The author found that blisters applied to the temples, and repeated, if necessary, several times, in all cases effected a cure. The second species, however, depending on scorbutus, required that complaint to be removed, before it would yield to the remedy.

An interesting case is detailed by Dr. Clark, surgeon to the forces. He extracted three small cartilaginous substances from the cavity of the knee joint at three successive operations. The use of the joint was completely restored.

Dr. Bostock has described some experiments which he had an opportunity of making on the urine and serum of the blood

blood of a young lady who had been taking large quantities of soda.

Mr. Chevalier, surgeon to the Westminster General Dispensary, has stated a case, in which the internal coat of the stomach and duodenum was lacerated by vomiting.

"—— Froome, aged 14, went out on Saturday, 25th of Dec. 1813, to a Christmas feast, ate heartily, and drank rather freely of gin and water; on the evening of the following day he became sick, and vomited violently. The vomiting continued, at intervals, during the whole of that night and the following morning. He went out, however, for a short time, but felt very ill; and said to one of his companions, that his blood was boiling at his heart, and that he thought he should die; and begged he would come to his funeral, if it were so. He soon returned home, and about two o'clock on Monday afternoon he became short breathed, unable to swallow, and felt great anxiety, with almost continued efforts to vomit. These symptoms increased till the following day, when my friend Mr. Lightfoot, of Oxford-street, saw him, and, thinking his situation dangerous, desired that I might be sent for.

"I visited him about noon; his appearance was extremely affecting; his countenance was flushed and turgid; his breathing anxious and interrupted; his pulse very irregular; and his extremities cold. He complained of great uneasiness at his heart, which was increased by pressure near that viscus, the action of which consisted in the successive repetition of three irregular strokes; the first rather violent, the second feeble, and the third still more so. His attempts to vomit were frequent and most distressing, and generally terminated in the discharge of white froth. When he attempted to drink, the effort to swallow was accompanied by a violent and agonizing spasm of the pharynx, which made him dash the cup from his hand. Pressure on the region of the stomach, particularly towards the right side, occasioned him a great increase of pain, and an immediate recurrence of the efforts to vomit. Towards the evening, he vomited in successive efforts near two pints of blood; after this he became easier, and said he should like to eat something; toasted bread was given him, of which he ate two pieces rather eagerly, but the vomiting speedily returning, he threw up what he had eaten, and soon after this a quantity of something which he said was so bitter it was enough to kill him. Almost immediately after this he expired.

"I opened the body the following morning. The left lung was found to adhere to the pleura very generally; in every other respect the thoracic viscera were healthy. The heart, and every thing connected with it, appeared entirely in a natural state. The viscera of the abdomen also appeared to be healthy externally; but, in laying open the stomach and duodenum, the internal coat of both appeared to be torn in various places. These lacerations were much larger in the duodenum than in the stomach; and near the pylorus they extended nearly round the circumference of the gut, and

and rendered this part so weak that it was quite torn off in a very slight effort to loosen this portion of the intestine for the purpose of passing a ligature round it. Two extensive lacerations were also found near the middle of this portion of the intestine. All that remained of the intestinal tube, and also the whole of the œsophagus, and all the rest of the abdominal viscera, were perfectly free from any morbid appearance."

Mr. Henry Earle, surgeon to the Foundling Hospital, has communicated some original and ingenious observations on contractions after burns or extensive ulcerations. The mischief resulting from these accidents is obvious, and of frequent occurrence; we shall therefore be gratified to learn, on some future occasion, that the treatment proposed by Mr. Earle has proved successful in more cases than in the one which he has now related.

Dr. R. B. Cheston, Physician to the Gloucester Infirmary, has related the history of a child retained in the mother fifty-two years after the usual period of utero-gestation, so curious and extraordinary, that, though long, we shall present it to our readers in the words of the author. The case is illustrated by plates, but it is sufficiently intelligible without their addition.

"In the month of December, 1738, Mrs. Cowles was taken in labour with her fourth child, having gone her usual time without any circumstances differing from her former pregnancies; the pains were lingering, and went on for three days, but without any advances towards delivery, under the attendance of a female midwife, who had been with her on former occasions. The late Mr. Rogers, of Gloucester, an accoucheur of long established practice, and deserved eminence in his profession, was then called in, and, upon examination, declared that the child offered for the birth, but that he could not deliver it without instruments, as the pains were not sufficient to bring the child into the world. This kind of assistance Mrs. C. positively refused, under the idea that the child would be thereby sacrificed, and she firmly declared, that, if she could not be delivered without instruments, she and the child should die together.

"For some days the pains seemed to return at intervals, but gradually abated, so that by the end of the week all prospect of delivery was over. Great uneasiness still continued in her belly, confining her to the room, and she suffered much mental anxiety from her situation. As the case appeared so remarkable in many respects, Mr. Rogers was pressed for his sentiments on the probable termination of it, when he declared, that now the child would not be born, but that at some distant period, the bones of it would be found with the flesh gone. This account I received from Mrs. Cowles's sister, who lived constantly with her, attended at her labour, and was alive at the time of her death.

"In the year 1771, thirty-three years after her expected time of

delivery, I was desired to meet Mrs. C. at the house of a very intelligent friend of hers, who had been fully acquainted with every circumstance of her former situation, and who then confirmed to me the foregoing relation.

"At this time Mrs. C. requested, that, after her death, I would satisfy myself concerning the real nature of her case, about which so many doubts had been raised.

"From herself I learned the following particulars:—

"In the third year after the birth of her last child, she considered herself again pregnant, and felt in every respect as in her former pregnancies. The motions of the child were lively; she had milk in her breasts; and, as her labour seemed to come on, she felt the same kind of pains as before, though in a slighter degree, and with less bearing down, or effort for the birth. The pains of child-birth left her about the third day, and she continued in a very weak distressed state for full three months afterwards, when she gradually recovered her strength, and from that time had found but little diminution in size.

"Upon inquiring particularly whether she ever afterwards menstruated, she informed me that she had had several appearances at different times, but they had not made a sufficient impression on her mind, to enable her to speak to such a circumstance with the necessary precision. She had frequently been sensible of a gentle motion within the abdomen, when she was in bed, but very seldom when she was up or walking about; never found any pressure upon her bladder, so as to excite particular inclination to make water; and that had it not been for her increased size, she had not felt any material cause for complaint. Her general health was very little affected, and to the last year of her life she employed herself busily with her family concerns.

"In her 80th year she had a slight paralytic stroke. In February 1790, I was desired to visit her, as her friends were then alarmed at the change in the appearance of an ulcer on the toe, which had been of some standing, but not particularly troublesome. I found her in bed, with a small fluttering pulse, cold and discoloured extremities, and every sign of quick-spreading mortification in the affected foot. Being desirous to ascertain the general state of the abdomen, I examined it carefully, and found a considerable emphysematous crackling within the cavity, but not the least tension; so that a perfectly circumscribed tumour could be felt about two fingers breadth higher than the navel, but inclining to the right side. She died in a few hours.

"*Dissection.*—The lymphatics of the affected leg and thigh, from the foot up to the groin, were more conspicuous from the inflammation they had undergone, than any I had ever before observed, the limb being entirely covered by a red net-work.

"Upon exposing the cavity of the abdomen, a tumour immediately presented itself, covered by the omentum and small intestines, which adhered to it firmly. When these attachments were separated,

separated, it presented a complete bony surface, which yielded, upon striking it, the sound of a solid bone.

"As the supposed nature of the case called for a careful examination into the state of the uterus, I searched for it in its usual situation (for the tumour would admit of being raised from the sides and brim of the pelvis on which it rested), but could not distinguish it. Taking, therefore, the advantage of an examination per vaginam with one hand, while the other was in the pelvis, I at last met with a small firm substance, at the extremity of the vagina, lying flat at the bottom of the pelvis, but, as it had not the usual plump and hardened feel of the os tincæ, I became the more anxious to take out the whole contents of the pelvis, together with the tumour, that I might not injure any part of consequence to the grand object of my research. This I effected with no small trouble, and brought it away with me, for more minute examination at home. Extending my inquiries to the state of the other viscera, I found the liver of a very dusky hue, and particularly soft in its texture, but of its natural size. The gall-bladder had assumed the particular shape of a crescent, having both extremities filled with concretions of various sizes. There was likewise a quantity of thick viscid bile, which filled an ounce measure. The ducts were so large, that, upon pressure, the bile, as well as small calculi, readily passed through the ductus communis. The kidneys were natural in size and appearance. The spleen, like the liver, was soft, and deeply livid. The stomach and intestines were healthy.

"As, in the course of dissection, I found the greater arteries in a state of ossification, I took out the heart, with its immediate ascending branches, and the aorta descendens, as far as the iliacs within the abdomen, when the whole of these vessels proved more or less loaded with large deposits of earthy matter, particularly the emulgents, to their entrance into the kidneys, and the splenic artery even within the very substance of that viscus. The heart was soft and flaccid, without any other circumstance worth remarking, unless that the coronary arteries, for some length, were much hardened, but without any apparent deposit of earthy matter. The lungs, on the right side, adhered firmly and universally to the pleura; on the left, partially; but in general looked healthy.

"The adhesions of the tumour rendered the natural distinctions of what I had reserved for my examination at home rather obscure; but I at last ascertained the following circumstances. The upper part of the vagina was in a natural state, but the os tincæ appeared nearly as much reduced as at its dilation in a natural labour. Dividing, however, what was evidently the lower part of the uterus, I found its substance, though diminished in thickness, still retaining somewhat of its natural structure; its internal surface exhibited very clear remains of the plaited appearance which characterises the cervix, for about three inches, when it became contracted to an obtuse point, with an aperture which just admitted the round end of a probe to pass onwards in a strait direction. Upon

laying this open, there appeared a sulcus strongly marked with rising sides for about two inches, when they diminished gradually, till they were almost obliterated at its termination, in a small round cavity just of a size to receive a full-grown pea.

"The spermatic vessels were very evident on the right side, attached to the superior part of the elongated uterus, but no trace of the ovarium could be discovered; and it was only after a very attentive search that I found a cord-like substance, about the size of a crow-quill, in its external appearance not unlike the vas deferens. Upon discovering that this was tubular, I slit it up, and found, by the elegantly plaited appearance of its internal surface, that it was undoubtedly the fallopian tube. On the left side, the fallopian tube, possessing in every respect its natural course and appearance, and terminating as usual in its fimbriated extremity, was very obvious. I could not, however, satisfactorily ascertain the existence of the ovarium. The close adhesions to the neighbouring parts, and the pressure occasioned by the tumour, will sufficiently account for this circumstance.

"On separating the soft parts, the bony surface was found perfectly complete, except at that point where the cavity terminated; and here, for about the size of a sixpence, the ossification was deficient, and the aperture filled up with a steatomatous or sebaceous matter, which readily suffered a probe to pass within the tumour, about half an inch, when it was prevented from going further by a firm resisting substance. The bony mass, now divested of every thing connected with it, very much resembled a human cranium of a middle size, but round rather than oblong, weighing, with its contents, three pounds, one ounce, four drachms.

"Though the circumstances first-mentioned were sufficient to support an opinion that a fœtus might be inclosed in this bony case, yet the possibility of its being an enlarged ovarium, or some substance of a glandular nature in a state of ossification, determined me to divide it through the middle with a fine amputating saw, which would but slightly derange its contents. If it proved to contain a fœtus, the divided parts might be readapted so as to show their natural connections, and such means pursued as would best assist any further inquiries.

"A longitudinal section was therefore carried through the middle of the bony mass, and the divided surfaces, on a superficial inspection, very much resembled the kind of tumour frequently met with in the different viscera, and composed apparently of cartilaginous layers, whose interstices are filled up with steatomatous matter. I soon, however, discovered that it consisted of an osseous cyst, containing the body of a full-grown fœtus, generally speaking in a state of wonderfully perfect preservation. The course of the saw had been very favourable to the subsequent examination of the parts. It had passed obliquely through the head and trunk in a direction from before backwards, commencing on the right side of the head, continued through the right shoulder, and the same side

side of the chest, which cavity was just exposed; then slanting from the right hypochondrium through the middle of the pelvis. Of the extremities, the left leg only was cut through; one half of the tumour contained the greatest part of the head, with the whole of the neck, nearly the entire chest and abdomen, the left upper extremity, and the thigh and upper portion of the leg of the same side. In the other division, I had a slice of the right part of the face and chest, the whole right upper and lower part of the left leg, with the foot of the same side."

Want of room obliges us to defer the remainder of this case, which, with the following, will appear in our next.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

NATIONAL VACCINE ESTABLISHMENT.—At a Board holden on the 6th day of October, 1814, it was resolved,

That there be three classes of vaccinators, namely, *stationary*, *extraordinary*, and *corresponding*.

That the vaccinators of each class be members of the Royal College of Surgeons in London.

That every vaccinator retain his office during the pleasure of the Board; and upon such conditions as the Board shall, from time to time, judge proper.

That stationary and extraordinary vaccinators be chosen by the Board.

That corresponding vaccinators be appointed by the Board, or by the inhabitants of distant parishes or districts.

That the present stationary vaccinators be continued, upon the remunerative conditions under which they were chosen, until the Board shall otherwise determine.

That extraordinary vaccinators be resident within, or in the vicinity of, the metropolis; and that each of them be expected to sign a copy of the following form of engagement:

I hereby engage, as extraordinary vaccinator of the National Vaccine Establishment, to vaccinate, gratuitously, the infant poor, and other proper objects, who shall apply, or be presented to me, for vaccination; to promote, to the utmost of my power, the practice of vaccination; and, upon every occasion, to act conformably to the instructions which I have received, or which I may receive, from the Board of the establishment.

That corresponding vaccinators be resident in the United Kingdom and its dependencies; not in the vicinity of the metropolis: and that, whether appointed by the inhabitants of parishes or districts, or by the board, each of them be expected to keep a register of the persons whom he shall vaccinate, with remarks upon interesting occurrences; and, annually, to communicate a summary thereof to the board of the establishment.

"That

That every corresponding vaccinator be allowed copies of the printed directions of the board relating to vaccination, and to supplies of vaccine lymph, upon due application to the board.

That a list of the members and officers of the board, and of the vaccinators under the three distinct heads, be annually printed; that a copy thereof be sent to each of such persons; and that copies be otherwise distributed, according to the directions of the board, for the public information and benefit.

That to induce the appointment of corresponding vaccinators, and, also, otherwise to further the designs of the establishment, an advertisement, in the following terms, be inserted in such public papers, and be otherwise printed and circulated, as the board shall from time to time direct; and that such advertisement have the signatures of the members of the board.

National Vaccine Establishment.—The Board of the National Vaccine Establishment, under the authority of government, in pursuance of their duty, to extend, by all possible means, the practice of vaccination, and thereby to accelerate the extermination of small-pox from this nation, as happily has already been effected in some countries where, before the introduction of vaccination, that disease was prevalent, and generally destructive; do recommend to the inhabitants of parishes in the United Kingdom and its dependencies, not in the vicinity of the metropolis, to appoint so many members of the Royal College of Surgeons in London as may be judged expedient, corresponding vaccinators of the National Vaccine Establishment; who shall each be expected to vaccinate, gratuitously, the infant-poor, and other proper objects, inhabitants of the district to which he shall be appointed; to keep a register of the persons whom he shall vaccinate, with remarks upon interesting occurrences; and annually to communicate a summary thereof to the board of the establishment, addressed to Dr. Hervey, National Vaccine Establishment, Leicester Square, under cover, to the Right Hon. the Secretary of State for the Home Department, Whitehall.

And every person who shall be appointed as herein is recommended, will be recognised by the board as a corresponding vaccinator of the National Vaccine Establishment; and will accordingly receive, free of expense, the printed directions of the board relating to vaccination; and at all times necessary supplies of vaccine lymph.

The board also earnestly solicit the enlightened and benevolent clergy of the United Kingdom and its dependencies, to exhort their parishioners favourably to receive, and justly to estimate, the blessing providentially pointed out for immediate security against the infection of small-pox, and eventually for the total eradication of that contagious, loathsome, and fatal disease; and particularly to impress upon their minds the special duty of the directors of institutions for the benefit of infant-poor, to obtain for the objects of their charitable intention timely and proper vaccination.

And the board solemnly call upon all persons, especially the magistrates

magistrates of the United Kingdom, as they value the lives of human beings, to use their influence and authority in preventing the exposure of persons having upon them small-pox; and, so far, in arresting the propagation, and forwarding the extinction, of that pestilential malady.

John Latham, M.D. President of the Royal College of Physicians.

Henry Ainslie, M.D.
James Haworth, M.D.
Thomas Hume, M.D.
H. J. Cholmeley, M.D.
} Censors

William Blizard, Master of the Royal College of Surgeons.

Henry Cline,
William Norris,
} Governors.

James Hervey, M.D. Registrar.

At the meeting of the London Medical Society, on Monday, the 13th instant, Mr. STEVENSON mentioned that he had successfully performed Professor Assalini's operation for the artificial pupil. This was done in the presence of that gentleman. Mr. Stevenson has since had an opportunity of repeating it with equal success. He is convinced that this method exceeds all others hitherto proposed, especially where the opacity completely occupies the centre of the cornea.

The late MARTIN VANBUTCHELL, who made himself so remarkable, not to say ridiculous, by his long beard, his poney, and his embalmed rib, has rendered a greater service to the English public than is generally known. To him, it is said, we are indebted for the invention of elastic bracers. From the time that it has been the custom to be unnaturally short-waisted, the great difficulty has been to support the small-clothes. This was atchieved by tight waistband; the consequence of which was such a pressure on the parietes of the abdomen, and forced their contents through the ring. Frequent as hernias are, they are much less so in the rising generation since the introduction of bracers. For this remark we are indebted to Mr. Bell, who examines the boys brought to the Marine Society.

One of the French Journals mentions a circumstance which would argue a very imperfect state of civilization in some of their departments. In the town of Noyon, a man under Hydrophobia escaped from his nurses into the street, where he was actually shot by the populace, lest he should communicate the disease by his bite. The magistrates interfered in vain. We hope to lay before our readers more particulars of this extraordinary transaction.

The Medico-Chirurgical Society of Gaud, have proposed to give a prize medal, 300 franks in value, for the best dissertation on the following subject; the discussion on the merits of the respective memoirs will be made in the year 1815.—Question: What are the Diseases, internal or external, which from their appearance, symptoms, or situation, can be confounded with Syphilis; and what are the signs, phenomena, and the means by which they

can be distinguished with certainty from that disease?—The memoirs written in Dutch, French, Latin, or English, must be sent, free of postage, before the close of July, 1815, to Mr. Kluyskens, perpetual secretary of the society. The memoirs should be accompanied with a sealed packet, containing the name and residence of the author.

Congenital Hernia of the Heart; by M. Chaussier.—M. Chaussier has presented to the Medical Society of Paris, the case of an infant who has a tumor at the superior and anterior part of the abdomen: it is soft, hemispherical, elevated about an inch from the surface of the body, two inches and a quarter broad, in which the alternate motions of the ventricles and auricles of the heart are evident.

The appearance and size of the tumor, occupying a space from the anterior and lower part of the thorax to the navel, changes with the movements of respiration. When the child inspires, the heart ascends, and in part seems to return into the thorax. In *expiration* the heart descends, and its pulsations are more conspicuous. The tumor sensibly increases in size and tension when it cries, or when it is put in an erect position, and *vice versâ*. The tumor diminishes when it is quiet, and the limbs are bent upon the trunk; a graduated pressure dissipated the tumor, but the respiration became more difficult; when the pressure was removed, the tumor returned.—The child sucks, performs all its functions, and is likely to live.

Senac, in his Traité du Cœur, lib. iv. chap. 8, relates a particular case where the heart had formed to itself a cavity in the diaphragm, which it forced downwards, and produced a strong pulsation in the epigastrium. Regis (Journ. des Scav. 1681,) relates that he dissected two little dogs, in which the heart was protruded from the thorax. Vaubonais (Acad. des Sciences, 1712,) speaks of a fœtus born at the eighth month of pregnancy, whose heart escaped from an opening at the upper part of the thorax. Martin Martinez, in a dissertation printed at Madrid in 1723, which Haller has inserted in the second volume of Disput. Anatom. relates a similar occurrence. Tourtelli (Journ. de Med. tome 62) saw a child where the heart escaped from the lower part of the thorax, and extended to about an inch above the umbilicus.

In all the cases where the heart has been exposed and deprived of its pericardium, death has occurred shortly after birth; not so when it is protected from the air and covered by the integuments.

In the military hospital of Dijon, I observed in a soldier, 27 years of age, of a robust constitution, the heart situated at the anterior part of the sternum, about the centre, covered only by the skin; the sternum was wanting at its lower part; the ribs which unite to the sternum were deprived of the cartilage by which they are connected with it. Notwithstanding this singular congenital conformation, this man's health was good. He had been many years a soldier, and had endured all the fatigues incident to his

his profession without any untoward symptom. He was sent to the hospital for a slight indisposition, from which he soon recovered. M. Ramel (Journ. de Medicine, tome 49) relates a case very similar to that which is the subject of my observation. A girl, 10 years of age, was observed to have continual pulsations in the epigastric region, and experienced great uneasiness from the slightest pressure on this part. He recognized through the thickness of the integuments, that the heart was situated beneath the diaphragm, and by means of stays was enabled to remove all the inconveniences of her situation. Our deceased colleague at the Maternité Baudeloque, found in a child, that died soon after birth, two hearts, one in the thorax the other in the abdomen, which were united, and communicated with each other by different tubes, ramifications, and vascularies. In 1812, I saw at the Maternité a child much deformed in several parts. At the basis of the umbilical cord was found a herniary tumor, which not only contained the greater part of the abdominal viscera, but also the heart. An account of this is preserved in the second number of the Bulletin of the Society, published in 1813.—*Bulletin de la Faculté de Medicine de Paris.*

Case of a Man whose Skin naturally white became black; by M. Chomel, D.M.—Marin Charles Marion, 67 years of age, received into the Hospital la Charité for a pulmonary catarrh, added to an almost entire black discoloration of the skin. This man enjoyed tolerable health, with the exception of epistaxis and frequent pains of the head. In April last he began to perceive that his legs and arms assumed a blackish tint, but so indifferent was he about it, that he did not examine the trunk to discover if it was of the same colour. About this time there came languor and cough, his appetite failed, digestion was bad, his strength diminished; the body became more sensible to the impression of cold, and his legs were a little swoln towards the evening. A month after this he was admitted into the hospital, when the following appearances presented themselves:—The skin of the trunk, in all points of its extent, was of a black colour, but darker in some parts than in others; the lateral parts of the thorax and abdomen were the blackest, resembling the skin of the negro. The limbs were not so black as the trunk, and became toward the extremities gradually of a lighter tint; the skin was shining and remarkably soft; it did not exhale the odour of negroes, nor was it unctuous to the feel; it was dusted with a whitish powder from the natural desquammation of the epidermis, and especially from the action of scratching.

Nothing very remarkable was observed as to his general health; the expression of the figure was natural, appetite and digestion pretty good, respiration somewhat oppressed; the sleep was good, the legs and thighs œdematous, but it required strong pressure to produce depression, as in anasarca.

Interrogated as to the probable cause of this discoloration, the patient ascribed it to vermin and uncleanliness; he had been lousy, and had worn the same shirt a long time; he never had the itch, venereal disease, or any cutaneous eruption. In fifteen days after he came into the hospital, the œdema disappeared; but about the beginning of July new weakness came on, which increased so that the patient could not leave his bed. The difficulty of breathing increased, and the expectoration tinged with blood. The pulse was accelerated, and the œdema appeared in the inside of the thighs: on the 8th he died. On dissection the lungs were found suffused with blood. On cutting into the skin at several parts, the discoloration was found to arise from a layer of black matter on the surface; the epidermis was found connected to it, and could not by any means be separated from it.—*Bulletin de la Faculté de Medicine.*

The Edinburgh Reviewers, by their unfair treatment of Mr. Abernethy, have given Dr. Adams an opportunity of explaining, in an eighteen-penny pamphlet, the supposed complicated doctrine of his favourite master on the Vitality of the Blood.

Mr. Pettigrew has in preparation a new edition of Dr. Lettsom's Naturalists and Travellers' Companion, in which it is proposed to add an account of all the recent discoveries in the several branches of science therein treated of, which will be executed under the author's inspection, and will most probably appear early in the spring.

Dr. Bateman has published a third edition of his Synopsis. We have not yet had leisure to examine what alteration he has made in consequence of the case of Elephantiasis now in St. Bartholomew's Hospital, which so completely confirms his description of that disease in Dr. Rees's Cyclopædia, and contradicts his suggestions in the Synopsis. As such a case in a public hospital in these northern regions may not occur again, we shall think it our duty to avail ourselves of it, for the benefit of practitioners in the country, who may not have an opportunity of seeing it. We shall be open to every candid remark, and be thankful for information from any source.

Theatre of Anatomy, Medicine, &c. Blenheim-street, Great Marlborough-street.—Dr. Hooper and Dr. Ager will begin their next Course of Lectures and Examinations at this school, on Monday, February 6, 1815: on the Theory and Practice of Physic, at eight o'clock in the morning; on Chemistry, and the Materia Medica, at nine. Mr. Brookes, on Anatomy, Physiology, and Surgery, will begin on Monday, January 23, at two o'clock.

Medical School of St. Thomas's and Guy's Hospitals.—The

Spring Course of Lectures at these adjoining Hospitals will commence the beginning of February. viz.

At St. Thomas's.—Anatomy and the Operations of Surgery, by Mr. ASTLEY COOPER and Mr. HENRY CLINE.—Principles and Practice of Surgery, by Mr. ASTLEY COOPER.

At Guy's.—Practice of Medicine, by Dr. BABINGTON and Dr. CURRY.—Chemistry, by Dr. BABINGTON, Dr. MARCET, and Mr. ALLEN—Experimental Philosophy, by Mr. ALLEN.—Theory of Medicine, and Materia Medica, by Dr. CURRY and Dr. CHOLMELEY.—Midwifery, and Diseases of Women and Children, by Dr. HAIGHTON.—Physiology, or Laws of the Animal Œconomy, by Dr. HAIGHTON.—Structure and Diseases of the Teeth, by Mr. FOX.

Theatre of Anatomy, Bartlett's Court, Holborn.—Lectures on Anatomy, Physiology, Pathology, and Surgery, by Mr. JOHN TAUNTON, F.A.S. Member of the Royal College of Surgeons of London, Surgeon to the City and Finsbury Dispensaries, City of London Truss Society, &c. The Winter Course will commence on Saturday, January 21, 1815, at eight o'clock in the evening precisely, and be continued every Tuesday, Thursday, and Saturday, at the same hour.

Dr. SQUIRE will, on Saturday the 7th of this month, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

Dr. ADAMS will commence his Spring Course of Lectures on the Institutes and Practice of Medicine, about the end of January.

Dr. CLARKE and Mr. CLARKE will begin their next Course of Lectures on Midwifery and the Diseases of Women and Children, on Monday, January 23. The Lectures are read at the house of Mr. CLARKE, 10, Saville Row, Burlington Gardens, every morning, from a quarter past ten to a quarter past eleven, for the convenience of students attending the hospitals.

Dr. MERRIMAN's next Course of Lectures on Midwifery, will commence on the 24th day of January, at the Middlesex Hospital.

Dr. CLOUGH, Physician Accoucheur to the St. Mary-le-bone General Dispensary, &c. Berners-street, will commence his usual Course of Lectures on the Science and Practice of Midwifery, including the Diseases of Women and Infants, on Monday morning, January 9th, at half past ten, and in the evening at seven.

N. B. A separate course will be delivered to gentlemen in the army and navy.

A Course of Lectures on Electricity and Electro-Chemistry, by Mr. G. J. SINGER, will commence at the Russel Institution, on Monday, January 16, at eight o'clock in the evening, and will be continued on the succeeding Mondays at the same hour.

LONDON PRICES OF DRUGS.—Dec. 23.

(To be continued regularly.)

	£	s.	d.	£	s.	d. per
Aloes Barbadoes, from	22	0	0 to	0	0	0 C.
—— Cape	7	10	0 ..	8	0	0 —
—— Succotrina	28	0	0 ..	0	0	0 —
—— Epatica or E.I.	14	0	0 ..	16	0	0 —
Angelica Root	7	0	0 ..	7	5	0 —
Alkanet Root	5	10	0 ..	6	0	0 —
Antimony Crude	2	16	0 ..	0	0	0 —
Aqua Fortis	S.	0	8 ..	D.	1	1 lb.
Arrow Root fine	0	2	0 ..	0	3	6 —
—— ordinary	0	0	9 ..	0	1	3 —
Arsenic Red	5	0	0 ..	0	0	0 C.
—— White	2	12	0 ..	2	14	0 —
Balsam Capivi	0	4	9 ..	0	5	0 lb.
—— Peru	1	0	0 ..	1	1	0 —
—— Tolu	0	14	6 ..	0	15	6 —
Bark Jesuits', Com.	0	3	6 ..	0	4	0 —
—— Second	0	6	0 ..	0	7	0 —
—— Quil or best	0	8	0 ..	0	10	0 —
—— Red	0	8	8 ..	0	9	0 —
—— Yellow	0	2	0 ..	0	2	2 —
Borax refined E.I.	none.					
—— English	0	2	8 ..	0	3	0 lb.
—— unrefined or Tinc.	9	0	0 ..	10	0	0 C.
Camphire refined	0	6	0 ..	0	6	3 lb.
—— unrefined	15	0	0 ..	17	0	0 C.
Cantharides	0	9	0 ..	0	10	6 lb.
Cardamoms (best)	0	7	6 ..	0	8	0 —
Cassia Buds	32	0	0 ..	0	0	0 C.
—— Fistula W.I.	5	5	0 ..	in bond		
—— Lignea	42	0	0 ..	45	0	—
Castoreum American	2	10	0 ..	3	0	0 lb.
—— Russia	11	11	0 ..	0	0	0 —
Castor Oil per bottle 1¼ lb.	0	3	9 ..	0	4	3 bo
Cocculus Indicus	6	0	0 ..	7	0	0 C.
Colocynth Turkey	0	5	0 ..	0	5	3 lb.
Columbo Root	4	15	0 ..	6	0	0 C.
Cream of Tartar	5	0	0 ..	5	5	0 —
Gallangal East-India	uncertain		..	0	0	0 C.
Gentian Root	3	10	0 ..	3	15	0 —
Ginseng	none		..	0	0	0 lb.
Grains of Guinea	6	10	0 ..	0	0	0 C.
Gum Ammo. Drop	34	0	0 ..	0	0	0 —
—— Lump	5	0	0 ..	7	0	0 —
—— Animi	3	10	0 ..	7	10	0 —
—— Arabic E.I.	2	0	0 ..	4	0	0 —
—— Turkey Fine	8	15	0 ..	9	10	0 —
—— Barbary	5	5	0 ..	0	0	0 —
—— Assafœtida	10	0	0 ..	15	0	0 —
—— Benjamin	15	0	0 ..	60	0	0 —
—— Cambogium	28	0	0 ..	30	0	0 —
—— Copal scraped	0	3	0 ..	0	4	6 lb.
—— Galbanum	30	0	0 ..	0	0	0 C.

	£.	s.	d.	£.	s.	d. per
Gum Guaiacum, from	0	2	6 to	0	3	0 lb.
—— Mastic	0	4	6 ..	0	4	9 —
—— Myrrh	15	0	0 ..	18	0	0 C.
—— Olibanum	8	0	0 ..	11	0	0 —
—— Oppoponax	80	0	0 ..	0	0	0 —
—— Sandrac	8	0	0 ..	8	5	0 —
—— Senegal	6	15	0 ..	7	0	0 —
—— Tragacanth	28	0	0 ..	29	0	0 —
Jalap	0	4	9 ..	0	5	0 lb.
Ipecacuanha	0	14	6 ..	0	0	0 —
Isinglass Book	0	9	0 ..	0	10	0 —
—— Leaf	0	9	0 ..	0	10	0 —
—— Long Staple	0	9	0 ..	0	10	6 —
—— Short Staple	0	9	0 ..	0	10	6 —
Manna Flakey	0	4	9 ..	0	5	0 —
—— Sicily in Sorts	0	0	0 ..	0	0	0 —
Musk China	0	18	0 ..	0	0	0 oz.
Nux Vomica	2	0	0 ..	2	2	0 C.
Oil of Vitriol	0	0	3½	0	0	4 lb.
Opium East-India	1	3		1	4	0 —
—— Turkey	1	3	..	0	0	0 —
Pink Root	0	4	..	0	4	6 —
Quicksilver	0	5	3 ..	0	5	9 —
Rhubarb East-India	0	9	0 ..	0	13	0 —
—— Russia	0	18	0 ..	1	0	0 —
Saffron Spanish	2	10	0 ..	2	12	0 —
—— French	1	10	0 ..	2	15	0 —
Sago	5	5	0 ..	6	0	0 C.
Sal. Ammoniac	10	10	0 ..	11	0	0 —
Sarsaparilla	0	3	6 ..	0	4	6 lb.
Sassafras	7	10	0 ..	8	0	0 T.
Scammony Aleppo	1	9	0 ..	1	10	0 lb.
—— Smyrna	0	13	0 ..	0	0	0 —
Senna	0	4	6 ..	0	5	0 —
Seeds Anni Alicant	4	15	0 ..	5	0	0 C.
—— Coriander English	0	14	0 ..	0	0	0 —
—— Cummin	5	1	0 ..	0	0	0 —
—— Fenugreek	1	15	0 ..	0	0	0 —
Shellack	7	10	0 ..	10	15	0 —
Sticklack	3	10	0 ..	7	0	0 —
Snake Root	0	15	6 ..	0	0	0 lb.
Soap Castile or Spanish	9	0	0 ..	10	0	0 C.
Spermaceti refined	0	2	2 ..	0	0	0 lb.
Tamarinds West-India	8	10	0 ..	9	0	0 C.
Tapioca Lisbon	0	0	9 ..	0	1	0 lb.
Turmeric Bengal	4	10	0 ..	4	15	0 C.
—— China	6	10	0 ..	7	0	0 —
—— West-India	3	10	0 ..	4	4	0 —
Verdigris Wet	0	3	6 ..	0	0	0 lb.
—— Dry	0	5	0 ..	0	5	6 —
—— Crystallized	0	8	0 ..	0	8	6 —
Vitriol Roman	0	0	7 ..	0	0	0 —
—— Foreign white	2	10	0 ..	0	0	0 C.

Price of Vials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. 36s.—1 oz. 30s. — ½ oz. 24s.

OBSERVATIONS.

At recent Sales of Merchandize by Auction, Mr. E. Rodwell sold, on the 22d December, 40 sarons Yellow Bark, 2s. to 2s. 2d. per lb.—5 chests Peruvian Bark, 1s. 8d. to 5s. per lb.—5 casks Cream Tartar, 94s. per cwt.—2 casks Tamarinds, 5l. 10s. per cwt.—7 casks Arrow Root, 11d. to 16d. per lb.—1 cask Gum Olibanum, 10d. per lb.

Monthly Prices of SUBSTANCES *used in* PHARMACY,

At Messrs. SELWAY and HENLEY's (Chemical and Pharmaceutical Laboratory,) 35, Upper Mary-le-bone Street, Portland Place.

Acetum Scillæ	lb.	2s.	0d.
Abietis Resina		0	10
Acaciæ Gummi, from 2s. 3d. to		3	6
ACIDUM Aceticum, cong. 3s. 6d.—Benzoic. oz. 6s. 0d.—Oxalic. lb. 18s. 0d.—Nitric. 3s. 9d.—Nitros. 2s. 8d.—Muriatic. 0s. 9d.—Sulphuric. 0s. 6d.—Sulph. Arom. 5s 0d.			
Alcohol sp. gr. 815 M.	lb.	5	0
Æther sulphur. sp. gr. 789		10	6
——— rectificatus sp. gr. 744		12	0
Ærugo	lb.	6	6
Aloes spicatæ extractum		5	0
Alumen, 4d. exsiccatum		0	8
Ammoniæ Murias, 2s. 2d. to		2	9
——— Carbonas		3	6
Amyg. Amaræ, 1s. 6d. Dulc.		5	0
Ammoniacum, from 6s. 6d. to		12	6
Anthemidis Flores, 1s. 9d. to		2	0
Antimonii Sulphuretum		1	0
——— Aurum. Sulph.		6	6
——— Murias		3	9
Antimonium Tartarizatum		5	0
Aqua Cinnamomi vera		18	0
—— Rosæ		5	6
Aliæ Aquæ, from 2s. 6d. to		3	6
Arsenici Oxydum	lb.	1	0
Argenti Nitras		6	9
Assafœtida Gummi-resina		6	9
Aurantii Cortex		2	6
Balsamum Peruvianum		33	0
——— Tolutanum		15	0
Benzoinum elect.		11	0
Calamina præp.		0	3
Calumbæ Radix		2	6
Cambogia opt.		9	6
Camphora		7	3
Canellæ Cortex		3	9
Cardamomi Semina opt.		12	0
Cascarillæ Cortex		6	0
Castoreum	unc.	4	4
Caryophilli	lb.	11	6
Cassiæ Cortex		8	0
Catechu Extractum		2	3
Cetaceum		3	0
Cera flava, 3s. 6d. alba		3	9
Cerata, from 2s. 3d. to		4	8
Cinchonæ cordif. Cort.		5	6
——— lancif. Cort.		13	0
——— oblongif. Cort.		16	0
Cinnamomi Cortex		16	0
Coccus (Coccinella)		64	0
Colocynthidis		7	6
Copaiba		6	6
Cretæ ppt.		0	8
Croci stigmata		64	0
Cupri sulphas		1	0
Cuprum ammoniatum		8	0
Curcumæ Pulvis		2	6
CONFECTIO Aromatica, 8s. 6d.—Aurantii, 2s. 9d.—Opii, 4s. 6d.—Rosæ Gallicæ, 1s. 10d.—Rosæ Caninæ, 1s. 8d.—Scammoniæ, 15s. 0d.—Sennæ, 2s.—Amygdalæ, 5s. 0d.			
EMPLASTRA Ammon. 8s. 6d.—Cumini, 2s.—Galbani Comp. 1s. 8d.—Lyttæ, 6s. 6d—Opii, 2s. 6d.—Plumbi, 1s. 6d.—Resinæ, 1s. 6d.—Roborans, 2s. 0d.—Saponis, 2s. 6d.—Hydrarg. 2s. 6d.—Hydrar cum Amm. 6s. 0d.			
EXTRACTA Anthemidis, unc. 1s. 0d.—Belladon. 1s. 3d.—Cinch. 2s. 3d.—Cinch. resinos. 4s. 0d.—Coloc. 2s. 0d.—Coloc. comp. 0s. 10d.—Conii, 0s. 6d.—Gent. 0s. 5d.—Glycyr. lb. 3s 0d.—Cascar. unc. 3s. 0d.—Hæmatoxyli, 0s. 5d.—Humuli, 0s. 9d.—Hyoscyami, 1s. 0d.—Jalapæ, 1s. 6d Res. 2s. 8d.—Opii aquos. 3s. 8d.—Opii resinos, 3s. 0d.—Papaveris, 0s. 6d.—Rhæi, 2s. 4d.—Sarsapar. 10d.—Taraxaci, 6d.			
Ferri carbon. 1s. 0d. sulph.	lb.	1	0
Ferrum Ammoniatum		3	6
——— Tartarizatum		2	6
Galbani Gummi-resinæ		8	6
Gentianæ Radix		1	3
Guaiaci Resina		7	6
Hydrargyrus purificatus		5	6
——— cm Creta		4	0
Hydrargyri Oxymurias		8	0
——— Submurias		8	6
——— Hydros.		10	0
——— Nitrico-Oxydum		8	6
——— Oxydum Rubrum		5	0
——— Sulphuretum Nig.		3	6
——— Præcipitatus Alb.		8	0
Hellebori nigri Radix		2	6
Ipecacuanhæ Radix		18	0
——— Compos. Pulv.	lb.	8	0
Jalapæ Radix		6	6
Kino		12	0
Liquor Plumbi Acetatis M.	lb.	1	0
——— Ammoniæ P. L.		2	8
——— Vol. Corn. Cerv.		1	3
Linimentum Camphoræ comp.		5	0
——— Saponis comp.		5	0
Lichen Islandicus P.	lb.	1	9
Lini Semina		0	6
Lyttæ		11	0
Magnesia		8	0
——— Carbonas		3	0
——— Sulphas		1	2
Manna optima		6	6
Mel Rosæ		2	6
—— Despumat.		3	0
Moschus pod, 24s. in gr. unc.		40	0
Mastiche	lb.	5	6
Myristicæ Nuclei		25	0
Myrrha elect.		6	6
Opium (Turkey)		34	0
——— (East Indin)	lb.	32	0
Oleum Amygdalæ	lb.	3	9

Oleum Anisi ..... unc. 2 0
—— Anthemidis 5 0
—— Cinnamomi Cassiæ 8 0
—— Caryophilli 5 0
—— Cajuputi 8 0
—— Carui 1 3
—— Juniperi 0 9
—— Lavandulæ 5 0
—— Lini ..... cong. 6 0
—— Menthæ piperitæ unc. 3 6
—— viridis 3 6
—— Olivæ, from 12*s.* 0*d.* to 18 0
—— Origani ..... unc. 2 0
—— Pimentæ 4 6
—— Ricini, from 7*s.* 0*d.* to 10 0
—— Rosmarini ..... unc. 0 9
—— Succini .. 2*s.* 4*d.* rect. 2 6
—— Sulphuretum ..... lb. 1 6
—— Terebinthinæ rectif. .. 2 0
Oxymel Scillæ 3 0
Papaveris Capsulæ (per 100) 2 3
Plumbi Carbonas ..... lb. 0 8
—— Superacetas 2 2
Potassa Fusa ..... unc. 0 6
—— cum Calce 1 6
Potassæ—Nitras, lb. 1*s.*—Acetas, 8*s.*—Subcarbon. 1*s.* 2*d.*—Carbon. 4*s* 6*d.*—Tartras, 3*s.*—Supertartras, 1*s.* 10*d.*
Pilulæ Hydrargyri 6 0
—— Aloes comp. 8 0
—— cum Colocynth. 16 0
—— Scillæ Compos. 6 6
—— e Styrace 48 0
Piper longum et Nigrum .. 2 6
Pimento ..... lb. 2 6
Pulvis Aloes cum Canella .. 6 6
—— Compositus 10 0
—— Antimonialis 7 0
—— Cinnamomi Comp. .. 16 0
—— Cornu cervi cum Opio 14 0
—— Cretæ Composit. 8 0
—— cum Opio 8 0
—— Kino Compositus 12 0
—— Scammoniæ Comp. unc. 2 6
—— Sennæ Composit. .. lb. 8 0
—— Tragacanthæ Comp. .. 5 0
Resina Flava et Nigra 0 5
Resæ Folia 8 0
Res Quassiæ 1 6
Rhæi Radix (Russia) 32 0
—— (East India) 14 0
Sapo (Spanish) 2 6
Sarsaparillæ Radix Inc. 5 0
Scammoniæ Gum-Resina unc. 2 6
Scillæ recens, 1*s.* 3*d.* siccata .. 3 6
Sennæ Folia Opt. Alexand. .. 6 6
Simaroubæ Cortex 4 0
Sinapis super. 2 6
—— secund. 2 0
Sodæ Boras 4 0
—— Carbonas 7 0
—— Phosphas 2 8
—— Subcarbonas 1 4
—— Sulphas 0 8
Soda tartarizata ..... lb. 2 4
Spongia usta ..... unc. 1 3
Spiritus Ammoniæ .... M. lb. 3 6
—— aromaticus 4 6
—— fœtidus .. 3 6
—— succinatus 4 6
—— Cinnamomi ver. 3 6
—— Juniperi Compos. .. 3 0
—— Lavandulæ 4 6
—— Compos. 5 8
—— Myristicæ 3 6
—— Pimentæ 3 0
—— Rosmarini 3 0
—— Ætheris Aromaticus 6 0
—— Compositus 7 0
—— Nitrici sp. gr. 860 5 6
—— Sulphuricі 6 0
—— Vini rectificatus 26 0
Syrupi, from 1*s.* 8*d.* to 3 0
Sulphur 0 6
—— Præcipitatum 1 0
Tamarindus opt. 2 3
Terebinthina Vulgaris 0 9
—— Canadensis 8 0
—— Chia 6 0
Tragacantha Gummi 7 0
Tincturæ—Aurantii, M. lb. 3*s.* 9*d.*—Aloes, 4*s.* 0*d.*—Aloes Comp. 9*s.* 6*d.*—Assafœt. 5*s* 6*d.*—Balsa. Tolut. 5*s.* 6*d.*—Benzoini Comp. 6*s.* 9*d.*—Camph. Comp. 4*s.* 0*d.*—Cardam. 4*s.* 0*d.*—Cardam. Comp. 4*s.* 0*d.*—Calum. 3*s.* 9*d.* Capsici, 3*s.* 9*d.*—Cascar. 4*s* 6*d.*—Cast. 7*s.* 0*d.*—Catechu, 4*s.* 0*d* —Cinchonæ, 6*s.* 0*d* —Cinch. Comp. 6*s.* 0*d.*—Cinch. Am. 7*s* 0*d.*—Crpci, 6*s.* 6*d.*—Digitalis, 4*s.* 6*d* —Ferri Ammon. 4*s.* 0*d.*—Cinnam. 4*s.* 6*d.*—Cin. Comp. 4*s.* 6*d.* Gent. Comp. 4*s.* 0*d.*—Guaiaci, 6*s.* 0*d.*—Guaiaci Am. 6*s.* 0*d.*—Helleb. Nig. 4*s.* 6*d.*—Humuli, 5*s.* 0*d.*—Hyoscyami Nig. 4*s.* 6*d.*—Jalap. 4*s.* 6*d.*—Japon. 4*s.* 6*d.*—Fer. Mur. 5*s.* 0*d.*—Kinæ, 5*s.* 0*d.*—Lyttæ, 3*s.* 9*d.*—Myrrhæ, 4*s.* 6*d.*—Opii, 7*s.* 0*d.*—Opii Camph. 4*s.* 6*d.*—Quassiæ, 3*s.* 9*d.*—Rhei, 4*s.* 6*d.*—Rhei Comp. 4*s.* 0*d.*—Scillæ, 4*s.* 6*d.*—Sennæ, 4*s.* 9*d.*—Serpent. 6*s.* 6*d.*—Valer. 4*s.* 6*d.*—Valer. Am. 6*s.* 6*d.*—Zingiberis, 4*s.* 6*d.*
Valerianæ Radix 1 8
Veratri Radix 1 6
Unguenta—Hydrar. fort, 5*s.* 6*d.*—Hydrar. Mit. 2*s.* 0*d.*—Hydrar. Nitratis, 3*s.* 3*d.*—Hydrar. Nitrico-oxy. 2*s.* 9*d.*—Sulph. Comp. 1*s.* 9*d.*—Alia ung. 1*s.* 8*d.* to 3*s.* 6*d.*
Uvæ Ursi Folia 2 6
Vina—Aloes, 3*s.* 6*d.*—Antimoniale, 2*s.* 0*d.*—Ferri, 3*s.* 6*d.*—Ipecac. 5*s.* 6*d.*—Opii, 8*s.* 0*d.*
Zinci Oxydum 4 6
—— Sulphas purif. 2 0
Zingiberis Radix opt. 3 2

Leeches, 24*s.* per hundred.—Essential Salt of Lemons, 4*s.* 6*d.* per dozen.

METEOROLOGICAL REGISTER.

From November the 25th, to December the 25th, 1814.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure. Max.	Min.	Mean.	Temperature. Max.	Min.	Mean.	
	26	W	29·46	29·22	29·305	50	34	44·3	Rain
○	27	W	29·5	29·5	29·5	45	36	41·6	Rain
	28	N	29·73	29·67	29·697	48	35	40·6	Rain
	29	W	29·8	29 33	29·527	48	38	41·6	Rain
	30	SW	29·28	29·19	29·217	44	36	40·3	Fair
	1	NW	29·66	29·45	29·543	45	37	40·6	Fair
	2	N	29·80	29·74	29·772	46	35	39	Cloudy
	3	NW	29 88	29·88	29·88	47	36	39·6	Nights. Foggy
◑	4	N	29·64	29·64	29·64	50	34	39·6	Foggy
	5	NW	29·59	29·42	29·576	46	33	41	Foggy
	6	N	30·08	29·9	30·	46	32	38	Clear
	7	W	29·80	29·69	29·745	46	39	40	Clear
	8	NW	29·63	29·45	29·51	49	33	43	Rain
	9	NE	29·54	29·32	29·452	53	31	42·8	Rain
	10	N	29·69	29 32	29 45	52	35	40·3	Fair
●	11	W	29·47	29·47	29·47	53	50	49·9	Rain
	12	SW	29·79	29 68	29·722	57	53	55·3	Rain Hard Gale
	13	SW	29·55	29·52	29 53	58	42	52	Rain Hard Gale
	14	NW	29·73	29·64	29 67	56	45	49·3	Gale Fair
	15	SW	29.65	29·55	29 6	57	41	50·6	Fair Gale
	16	SW	29·92	29·43	29·612	55	40	50·3	Rain Gale
	17	SW	29·93	29·73	29 79	57	45	47	Rain Gale
	18	W	29·70	29·70	29·70	59	50	54·3	Rain
◐	19	NW	29·83	29 67	29·712	55	32	47·6	Fair
	20	N	30·04	30·01	30·026	40	31	36	Fair
	21	NE	29·97	29·89	29·925	37	30	34	Fair Lunar Halo this Evening
	22	NE	29·69	29·60	29·637	44	31	35·6	Fair
	23	NE	29·60	29·49	29·567	41	30	35·6	Fair
	24	E	29·65	29·61	29·63	36	30	32·3	Snow
	25	E	29·60	29.60	29·60	37	31	33	Snow

RESULTS.

Mean barometrical pressure of the month	29·633	Mean temperature of the month	42·486 deg.
Maximum 30·08	wind at N	Maximum 59,	wind at W
Minimum 29·19	—— SW	Minimum 30,	—— NE

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
6	4	2	0	0	6	6	6

	Mean barometrical pressure.	Mean temperature.
From the full moon on the 27th Nov. to the last quarter on the 4th Dec.	29·59	40·47
—— last quarter on the 4th, to the new moon on the 11th	29·624	40 6
—— new moon on the 11th, to the first quarter on the 19th	29·636	51·08
—— first quarter on the 19th, to the full moon on the 26th	29·727	36·3

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

AN Illustration of Mr. Hunter's Doctrine particularly concerning the Life of the Blood, in answer to the Edinburgh Review of Mr. Abernethy's Lectures. By Joseph Adams, M.D. Author of Observations on Morbid Poisons. 8vo.—Callow.

Report of the Medicinal Effects of an Aluminous Chalybeate Spring lately discovered at Sandrocks, in the Parish of Chale, in the Isle of Wight; pointing out its Efficacy in the Walcheren and other Diseases incident to Soldiers who have served abroad, &c. &c. By William Lempriere, M.D. 8vo.—Callow.

Recent American Publications.

Experiments on the Production of Animal Heat by Respiration. An Inaugural Dissertation, read and defended at the public examination before the Rev. President and the Medical Professors of Harvard University, August 20, 1813. By Enoch Hale, jun. M.D. Cummings and Hilliard, Boston.

A Treatise on the Membranes in general, and different Membranes in particular. By Xavier Bichat, Physician of the Hotel Dieu, &c. with an Historical Notice of the Life of the Author, by M. Huson. Translated by John G. Coffin, M.D. 1 vol. 8vo.—Cummings and Hilliard, Boston.

Dissertation on the Natural History and Medicinal Properties of Ergot, delivered at the annual meeting of the Massachusetts Medical Society, in June, 1813. By Dr. Oliver Prescot. Published by the Society. Boston.

An Inaugural Dissertation on the Medical Properties of Gold. By John C. Cheeseman. New York, 1812.

An Eulogium to the Memory of the late Dr. Benjamin Rush, Professor of the Institutes and Practice of Medicine, and of Clinical Practice in the University of Pennsylvania. Delivered and published at the request of the Graduates and Students of Medicine, by William Staughton, D.D. Philadelphia.

ERRATA.—In our last, p. 491, l. 17, for *exerted*, read *excited*.—P. 493, l. 23, erase the word *from*.—P. 501, l. 2, *grullus*, read *gryllus*.—And the reader is desired to observe, in this article relative to the eyes of insects, that where the order *orthoptera* is mentioned, the order *hemiptera*, according to the Linuæan system, is understood.—P. 518, l. 8, from bottom, after the word *following*, add *asserted that the stomach*.—In Mr. Woodham's paper, for *Baconian honour*, read *Baconian horror*.

TO CORRESPONDENTS.

Communications have been received from Mr. Rees,—A Regular Physician,—Mr. Whitford, &c. &c. &c. which will appear in our next.

THE

Medical and Physical Journal.

2 OF VOL. XXXIII.] FEBRUARY, 1815. [NO. 192.

" For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly " Journals; and there never existed any work to which the faculty in " EUROPE and AMERICA were under deeper obligations than to the " Medical and Physical Journal of London, now forming a long, but an " invaluable series."—RUSH.

For the Medical and Physical Journal.

Remarks on the Case of W. O., with Suggestions for its Cure; by Mr. LEVSON REES.

I SHOULD not have ventured at this time to have offered my opinion on a mode of cure for a disease, which has perplexed our first medical practitioners, if I had not been induced to do so by a letter in your Journal for this month from your correspondent W. O.

I will not pretend to say that he has never had the venereal disease, but, from his own account, I have no hesitation in believing that he has not now. It has occurred to me, in several instances, to see many cases of this disorder; and I can venture to say they have, in every case, yielded to one treatment; and, if it were not inconvenient to describe cases where the sufferers would be known from the account, I could mention several very similar to your unhappy correspondent, labouring for instance under ulcerated nodes on the tibia and cranium, blotches on the skin, ulcerated throats, with loss of the velum pendulum palati, and even of the bones of the palate, &c. nocturnal pains; in short, every symptom of the venereal disease, excepting, in some of the cases, the absolute impossibility of its ever having been communicated. All these symptoms I have known yield to the remedy I use, without a particle of mercury, or any other usually antisyphilitic remedy being taken. I think no other proof of these diseases never having been venereal need be offered.

My plan of treatment consists, after first paying attention to the state of the stomach and bowels, in administering steel in as large a proportion as can be given. The preparation I generally use is the sulphat of iron, in the form of the compound mixture of iron, or the pills of iron with myrrh

myrrh of the last London Pharmacopœia; but I believe any other preparation of steel equally efficacious.

It may be objected, that the state of the pulse will not, in all cases, admit of this remedy. I can only say I have not found it so; and, as the disease, in every case I have seen, is attended with great debility and emaciation, it is not likely to be found so. I have recommended a trial of the medicine to a medical friend, who, in two instances, has experienced the most beneficial effects to result from its use.

I have not mentioned auxiliaries, such as opium, &c. &c. of course every practitioner will administer them as occasion may require.

As Phlegmasia Dolens appears to excite some notice at present, I beg to observe, that I have just had a case, in a young married woman, *her first child*, which yielded to warm and anodyne fomentation to the whole limb, and very gentle frictions upwards; but, as the patient was suffering considerably under the effects of a severe hæmorrhage consequent on adhesion of the placenta, the antiphlogistic regimen was not adhered to,—indeed her pulse could not have admitted it. The disease made its appearance six or seven days after delivery. There was little or no milk secreted. The child died half an hour after its birth.

LEYSON REES,
Member of the College of Surgeons in London.

Merthyr Tydfil, Glamorgan,
Dec. 16, 1814.

For the Medical and Physical Journal.

On the Functions of the Nervous System; by C. W. SMERDON, Member of the Royal College of Surgeons.

THE Priestleyan theory on the effects of Respiration, is at once so beautifully simple, and (considering the animal machine as mere congeries of chemical apparatusses) so readily accounts for the phenomenon of animal heat, as well as the change which the blood undergoes in the lungs, that we cannot wonder why the human mind should have become dazzled with its splendour, and consequently as much wedded to it by prejudice, as by the conviction of its being built on the immutable basis of truth; and hence it is, that, notwithstanding this beautiful fabric is raised upon a very sandy foundation, it is still generally esteemed as truth, and will always remain a splendid monument of human genius.

We are taught, by this doctrine, that the blood in the pulmonary

pulmonary arteries is charged with carbon and hydrogen in loose combination; that these, being attracted by oxygen in the bronchial tubes and cells, pass into them (probably) by the exhalents, where one portion of the oxygen, uniting with the hydrogen, forms water, while another portion changes the carbon into carbonic acid: the blood, being thus freed from its impurities, is rendered capable of containing an additional quantity of caloric in a latent form, and this heat it acquires from that which is let loose during the process I have mentioned.

From the great bulk of the pulmonary arteries, when compared with the corresponding veins, we might be certain that something is evacuated from their contents, even if we were ignorant of the moisture which is expelled with the air in expiration, but that this something is hydrogen, is, I think, at best very doubtful; we know the exhalents of the lungs bear a very close resemblance, both in their structure and ultimate intention, to the perspiratory organs of the skin, which, in their healthy state, are constantly pouring out a fluid, and similar sets of vessels are also to be found in all the cavities of the body; in the abdomen, for instance, the contiguous arteries, after ramifying minutely over the peritoneum, terminate by open mouths or pores, from which serum, in the form of vapour, is exhaled, for the purpose of lubricating the contained viscera. The exhalations from the lungs, however, arise for the ramification of arteries containing venous blood, and, in common with the perspiration from the folicular openings of the skin, is an excretion evidently intended to evacuate the more watery part of the blood.

It is utterly impossible for the mere chemist, unless he call to his aid the science of physiology, to account for the apparent changes which take place in the temperature of man, when under the influence of some morbid disposition. If animal heat be first generated in the lungs, if it be imbibed by the blood, and again set free in the course of circulation, the body, under every circumstance, as well in health as in disease, ought to be equably heated: how is it then that such alternations take place in the temperature of the body as we witness in fever? how is it that these alternations come on after regular intervals, and in regular successions? how can we account for the accumulation of heat in one part of the body, while every other part is perfectly healthy, which is the case in local inflammations? The cause of this disease is said to be an accumulation of blood in the vessels of the inflamed part: if this be true, and according to the Priestleyan doctrine, the part, instead of being sensibly hotter, ought to be colder than

usual; at least there should be no increase of temperature, because the circulation in it being rather retarded in consequence of debility in the extreme branches, fresh blood cannot so readily supply the place of that which has parted with a portion of its heat.*

The phenomenon of that sort of local inflammation which is dependant on a constitutional cause, is equally inexplicable. Of this, gout is a striking example. A person, for instance, who has gone to bed in apparent health and vigour, shall be awoke in the night with excruciating pain in the ball of his great toe, accompanied with great increase of temperature, tumefaction, and redness of the part, and symptomatic fever; after the gouty paroxysm has continued for a definite period, it gradually subsides, leaving the sufferer in comparative health. Now, according to the generally-received opinion of animal heat, whence comes this increase of temperature, which, together with pain, generally precedes the swelling and redness? does it proceed from a greater quantity of blood than usual circulating through the affected part? This is not probable, because, after the paroxysm subsides, notwithstanding the pain and heat are considerably lessened, the part remains as red as before, which could not be the case if the increase of temperature arose from an increased quantity of blood; at least it is but fair to infer, that, if the cause remain unabated, the effect would also continue. After the intermission has remained for a certain time, during which the person has continued comparatively well, he will have another paroxysm of gout resembling the first in its train of symptoms, its duration, and its gradual disappearance.

The symptoms of every sort of unhealthy local inflammation are exasperated towards evening. A chilblain is an instance of this species of disease: here the pain and burning heat of the part during the exacerbation amount almost to torture; still the distress, after a few hours, will gradually subside, leaving the part swollen and of a purple redness, sore indeed to the touch, but free from pain, and of the natural degree of heat.

However satisfactorily, then, the Priestleyan theory may explain the cause of animal heat, when the functions of the

* Dr. T. Thompson, in his Annals of Philosophy, informs us, that in the course of four days a small inguinal gland gave out a quantity of heat sufficient to have raised the temperature of seven pints of water from 40° to 212°; yet the temperature of the part, at the end of the experiment, was not less than that of the rest of the body. The inflammation was subdued,

body

body are carried on in a uniform manner, it is inadequate to account for the variations in the temperature of man, when these functions are deranged by disease; and, as it is but reasonable to suppose that these phenomena proceed from one common cause, which, when healthy, produce equable effects, and *vice versâ*, so it cannot be considered as presumptuous or unreasonable to reject a doctrine which is evidently erroneous.

The experiments of Mr. Brodie, while they throw a considerable degree of light on this important subject, inflict a death blow on the Priestleyan doctrine. This gentleman found, that, after the apparent death of an animal was produced by pithing or decapitation, respiration could be artificially kept up for a definite period, as well as the diastole and systole of the heart; and, what is still more to our purpose, this organ still continued to circulate arterial and venous blood in the same manner (but, perhaps, not in such quantities) as when the animal was really alive. Still, notwithstanding this demonstrative proof, that the same processes were going on in the lungs, which, we are told, necessarily converts a quantity of latent into free caloric, the animal cooled faster than another placed under similar circumstances, but in which respiration was not kept up.

These experiments* (if accurately conducted) render it very probable that the brain is absolutely necessary for the production or distribution of animal heat.

Mr. Hunter suspected that the nervous system, if not the

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* Whoever reads the detail of these ingenious experiments, must feel as convinced as I do of their accuracy; and still this has been called in question very lately by similar experiments instituted by a foreigner, from which almost opposite results were produced. Now, even if these experiments be correctly stated, it would be extremely unjust to infer that they directly prove an inaccuracy in those of Mr. Brodie. None of the animals were decapitated, and the gentleman (I do not recollect his name) tells us, with an air of some importance, that, in destroying them, he did not cut through any blood-vessel. Now, if he divided the spinal marrow between the atlas and foramen magnum, he must have been fortunate indeed not to wound the vertebral arteries; and if he divided it lower in the neck, allowing the par vagum on each side also to be cut through, (for, if I am correct, a dog has no cervical sympathetic nerves,) would not some nervous communication be kept up between the brain and the trunk by means of the nervi accessorii? Other nerves also might be mentioned which I strongly suspect would contribute to that purpose.

source,

source, was a very principal agent, of animal heat; and he was led to adopt this opinion by observing considerable alternations of temperature in a gentleman during a paroxysm of apoplexy.

The derangement which fever occasions in the functions of the brain, as well as in the temperature of the body, is particularly striking. In the cold stage of an intermittent, the nervous system evidently becomes enfeebled, the mind dull and confused, and the patient a poor shivering being, sinking, as it were, voluntarily into the grave. After symptoms of diminished energy have continued for some time, the progress of the disease is suddenly arrested by an unknown agent; the mind now becomes quick and irritable, and its ideas rapid even to delirium, while the heat of the body gradually returns, and at length exceeds the natural degree.

If we could identify, by a direct experiment, the connection which appears to exist between the matter of electricity or galvanism and nervous energy, we could not be at any loss to demonstrate the cause or causes of animal heat, because the functions of the nerves, and the generation of caloric, would follow in the relation of cause and effect. If, however, this be not in our power, on account of the utter impossibility of explaining the modus operandi of powerful agents which we cannot bring under the cognizance of our senses, the evidence which we derive from comparing the effects of these matters on animals, prove this similarity in a very striking manner. The effects of galvanism on a recently-dead animal are too well known for me to describe them. On the living subject, also, the effects of this peculiar stimulus, when applied to the organs of the senses, are not less remarkable; and it would seem that galvanism has the property of heightening their several powers. Writers on this subject inform us, that, if the wires proceeding from a galvanic battery be applied to a point above the eye-lids, a flash of vibratory white light will be produced, in a dark room; if one of the wires, previously moistened, be placed in the ear, while the other is held by the hand in a glass of water, a stroke and a strong sound will be perceived in the ear; if the wire from the zinc end of the battery be placed on the tongue, and the conductor from the copper end under the tongue, a very disagreeable pungent taste will be perceived. These remarkable phenomena are strong presumptive evidence in favour of an analogy between the effects of galvanism and nervous fluid: each pass through conductors with the most astonishing celerity, and, although they are the most powerful agents in nature, their state of existence

is perfectly unknown. The conductors of the nervous fluid are also good conductors of the galvanic; and we know that the effects of both are similar, when applied through the medium of the nerves to the moving fibres of the body; and, lastly, I will repeat, that the powers of the senses are heightened when under the influence of galvanism. Hence, it is evident, that if the matter emanating from the brain, and that which proceeds from a galvanic battery, be not the same, the effects proceeding from their actions on the structure of animals are strikingly similar; nor is it unreasonable to conclude, that, if the agency of nervous energy could be brought into action out of the body, the same phenomena would proceed from it as we know are produced by galvanism.*

The nerves and arteries, even to their ultimate branches, uniformly accompany each other. No part of the body, for instance, can be pricked, without producing pain, or drawing blood, while the bones, which are but scantily supplied with that fluid, are almost insensible. In the liver, each branch of the vena portarum has its accompanying nervous filament. In the lungs, also, the ramifications of the bronchial and pulmonary vessels are accompanied by branches of the pulmonic plexus; nor is this equality between the arteries and nerves to be seen only in the larger organs of the body, but it is highly probable that wherever a fluid escapes from the extreme branch of an artery, whether it be a secretion, properly so called, or merely a percolation from the vessel, there also a nervous filament will be found.

This remarkable uniformity in the distribution of the nervous and arterial symptoms would lead one to suspect that there is a reciprocity of action between them, without which their ultimate intentions for sensation on the one hand, and for nourishment and secretion on the other, could not be accomplished.

* It is, perhaps, necessary for me to state, that these observations were drawn up (rather, indeed, for my own amusement, than with any ulterior object) before I had seen the elegant Lectures of Mr. Abernethy on the "Rationality of Mr. Hunter's Theory of Life;" and it is under the shelter of opinions which he has therein so ably defended, that I have presumed to disseminate my ideas on a subject which, in a physiological point of view, is of so much importance. Perhaps, also, I have been prompted by some degree of national pride, since the cause of animal heat has been very lately ascribed to fermentation, by a member of the most learned body in France.

If

If the analogy between the actions of the brain and of a galvanic battery be established, it will open to us a wide field for the exercise of our reasoning faculties, and, besides giving us an insight into the modus operandi of the secretory and excretory organs, it will furnish us with a rational explanation of the causes of these phenomena, which are the subject of this paper.

To the chemist, the agency of galvanism is the most powerful of any that he is acquainted with: its influence in the decomposition of various substances which were formerly considered as elementary, is too well known for me to particularize, nor is it my intention to discuss a subject which is foreign to my purpose; it is sufficient for me to say, that this peculiar stimulus is the most powerful agent for destroying that property which cements the integrant particles of bodies together.

If, then, the matter which emanates from the brain and spinal marrow, and conveyed to the different parts of the body through the medium of nerves, be analogous, either in its properties or its actions, to galvanic fluid, what will be the probable effect of that matter when it comes in immediate contact with blood contained in the extreme branch of an artery, or in that part where the vessel runs into a vein, after giving off an excretory duct or an exhalent pore? Is it not reasonable to suppose that this blood will become decomposed, partially or completely, in proportion to the quantity or energy of the nervous fluid which is sent to it? and knowing, as we do, that, at the instant a body is decomposed by a stream of galvanic fluid, a spark is produced, is it not evident, that if there be such an action constantly going on between the arterial and nervous branches in every part of the body, that the generation of heat must be the natural effect of the process? and lastly, may we not conclude, that, at this instant, a portion of blood is burnt or carbonised?

These phenomena (which, I presume, are evidently what must follow as the natural effect of actions that are analogous to galvanism) will be still farther illustrated when we come to the consideration of the secretion and excretion, and which will form the subject of my next communication.

Clifton, Bristol;
Nov. 12, 1814.

C. W. SMERDON.

For

For the Medical and Physical Journal.

On the Misrepresentation of Mr. Walker, with some Remarks on the Defence of his Variolous Essence; by Mr. WOODHAM.

"Errors in science have almost universally been the offspring of false or imperfect analogies."

IT is the usage of the two Houses of Parliament, to allow no member to speak twice, excepting the proposer of the question, unless by way of explanation or correction. The same custom, I think, should regulate the writers on disputed points. No one but the author of the subject controverted should be permitted to reply, except where his opponents have been misunderstood or misrepresented. Standing in this last predicament, I trust I shall be granted the privilege of correcting that misrepresentation, and at the same time to make a few remarks on Mr. Walker's defence of his *variolous essence.*

This gentleman, (I shall take leave to employ his own phraseology,) by way of introduction to his observations on vaccination, in the last Number of the Journal, after giving the title of my communication, says, "Had this gentleman passed over this hypothesis, as he considers it, he would hereafter have found, that I am as adverse to any preconceived theories or hypotheses as himself or any other person can be."

How I, or any one, save and except this gentleman himself, could otherwise consider it, I am at a loss to imagine; and, whether it were *præ-conceived*, or *post-conceived*, it is still the same. It is true, he may, if he please, call his *essence* an established fact, but, till I have some better evidence than mere assertion, I must be permitted to regard it as a pure hypothesis.

He continues, "with respect to the quotations this gentleman has made respecting my opinions in this instance, and his remarks upon them, I shall pass over them all, one excepted, being well aware that such opinions of mine as are there given, should they be ill-founded, cannot be productive of any evil tendency in practice." It is impossible to say that they are either ill or well-founded, because we have no means of determining; but that they cannot be productive of practical evil, is somewhat problematical. The hypotheses of this gentleman, may, like those of his hypothetical prototype Sydenham, sit so loosely about him, that he can throw them off when they will not bend to experience, or not suffer them to influence his practice; but it is far from

impossible, that some young men of confined education, and practising in remote villages, may, on perusing his paper, become so captivated with his *essential* hypothesis, that, like the adopters of Sydenham's, they may wish to make their practice and that accord; and, instead of cooling their variolous patients both within and from without, they may place them in such a degree of heat, and administer such calorific medicines, as they suppose will promote the fermentation of the *essence*, and its expulsion from the system. This, however improbable, is, as I before mentioned, not impossible, and, should only *one* fatal instance of such treatment reach this gentleman's ears, "sage grave man" as I doubt not he is, what will be the reproaches of his moral sense, and how much will he lament that he had ever sported in the fields of hypothesis!

"The circumstance alone," he goes on to observe, "which I shall notice, is the following observation, produced in the manner of analogy, thus: 'As well might it be said that this essence or innate principle is an alkali, and that the exciting cause is an acid, that coming in contact, an effervescence or commotion takes place in the lymph or blood, and a neutral salt is formed, which, being expelled from the system, leaves the patient ever after secure from the disease.'"

This is the misrepresentation of which I have to complain, and to correct which I have resumed my pen. It is asserting that to have been used as an analogy, which must have struck every one was employed as a ridiculous hypothesis, to show that it was equally rational and probable, or rather, though grossly absurd and improbable, not more absurd and improbable than his own.

Rejecting, therefore, what he has *mis-named* my analogy, this gentleman thus introduces the following, of which, he is pleased to say, he is indebted to me for the hint. "Without remarking upon this supposed analogy, which is by no means congenial with my ideas of analogies, were I to attempt to elucidate my opinion respecting a prior existence in the system of the essence, or an innate principle of small-pox, its excitement into action, and its expulsion, by a chemical analogy, I should adduce the example of what happens in the instance of fermenting liquors, as beer, &c. The essence or innate principle of fermenting matter, as we well know, exists naturally in the beer; but, in order to expel or drive out this essence or innate principle, remaining dormant or latent, and from which it is necessary it should be purified by art, a small portion of the same essence, in the form of yeast, which had been previously produced by a similar process, is added—the desired ferment or commotion

is excited, the original principle of fermentation existing in the beer is collected together, and finally expelled, or driven out, and used in a future similar purpose, and so on *ad infinitum.*"*

The above, with the note below, may be not inaptly termed, I think, this gentleman's *congenial* analogy and illustration, and which he considers, I presume, as not only correct but complete: "*totum in toto, et totum in qualibet parte.*" Let us, therefore, examine this analogy a little; let us bring it to its proper test, and see whether it is founded, as a correct analogy should be, on a *real*, not a *nominal*, resemblance. Is there any *real* resemblance, then, I would ask, between a beer vessel, which consists of a few staves hooped together with iron or wood, and having a top and bottom, and the "human form divine," composed of its bones, muscles, &c.?—Is there any *real* resemblance between the beer this vessel may contain, and the blood and other fluids of the body?—Is there the smallest *real* similitude between a patient in the pustular stage of small-pox, and a barrel of ale or porter in a state of fermentation, with the yeast running out at an aperture vulgarly called a bung-hole?—Who of unclouded intellect, who that has not suffered his imagination to outstrip his reason, will answer in the affirmative?—If, then, there be only a *nominal* resemblance, what becomes of this gentleman's *congenial* analogy, so triumphantly brought forward in support of his *essence*?—What becomes of the carbo-oxygenated solution of my "supposed paradox or inconsistency?"—Why, like the weird sisters, vanished into air; for

> "'The mind hath bubbles, as the water has,
> And these are of them:——."

West Smithfield,
Jan. 6, 1815.

JAMES WOODHAM.

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* "I have taken *malt liquor* as an example, ——. The essence or innate principle in this instance I consider to be existing originally in the wort, viz. carbon and oxygen, the union of which, forming carbonic acid, is the natural or inherent cause of fermentation, which produces and throws out what is called yeast; and which is commonly used as a ferment, in the purpose of promoting fermentation in future processes of the same nature. Here, then, we have, by analogy, I think, a solution of this gentleman's supposed paradox or inconsistency, viz. 'It is, therefore, according to circumstances, both agent and patient, cause and effect, the excitement to action, and the recipient of that excitement:' and this I take to be the case likewise in inoculated small-pox, and in vaccination."

For the Medical and Physical Journal.

An Account of the Disease which was Epidemic in some Parts of New-York and New-England, in the Winter of 1812–13.

"AMERICA," say the learned editors of the [late] London Medical Review, "seems to be the country of epidemics, as much as it is of swamps, woods, and savannahs." England, we might say in return, seems to be the country of scrophula and consumption, as much as it is of fogs and vapours. Such observations are at least injudicious, not to say incorrect. America has never suffered in proportion half so much from the severity of epidemic diseases as England. The yellow fever has been confined to two or three large cities, and the spotted fever to districts of country not very thickly populated; and the mortality from these disorders, compared to the whole population of the country, has been of trifling importance. We have never yet seen thousands falling by the plague, or the sweating sickness. The diseases of America are fewer in number, and more acute, than those of Europe. They are principally fevers and inflammations. We see but little of gout and dropsy, and scrophula, and the long train of chronic complaints, which vex the inhabitants, and enrich the physicians, of the older countries. The number of deaths, compared to the whole population, is probably smaller than that of any European country. We find, for example, on comparing the proportion of deaths to the whole population, in the *town* of Boston, with the proportion of deaths to the whole population of France, according to the statistical accounts of Peuchet, that while in the latter there dies annually one person in thirty, in the former there is about one only in forty-eight. This exhibits a great difference in favour of the salubrity of our climate, especially when we observe, that the comparison is between a populous closely settled town and a whole territory, comprehending both town and country, a country acknowledged to be the most healthy in Europe. In truth, it is difficult to explain the rapid increase of population in the northern section of the United States, except it be admitted to be an uncommonly healthy climate. In the New-England States, we have perhaps as few foreigners as any nation in Europe. There are no emigrations to our already populous country, but, on the contrary, there is a constant emigration to the interior of New York, Pennsylvania, and the North West territory, besides the current which commerce pours out over the whole face of the earth.

Notwithstanding

Notwithstanding this loss, it appears, that, from the year 1800 to 1810, the population of Massachusetts and Maine, which compose one state, was increased from 574,564 to 700,745, while the states into which our emigrations took place, have increased in a greater proportion.—What the writer means by swamps and savannahs, we do not exactly know, unless he believes the *prairies* of the Mississippi to extend to the Atlantic; or supposes the great lakes to be stagnant pools. But for the information of all Europeans, who have not studied the geography of America, we beg leave to make known, that, except the sea coast of the southern states, which consists of alluvial soil, the country is rather hilly; and that the New England states, to which the remarks alluded to most specially apply, form one of the most uneven rocky mountainous countries on the face of the globe. The illiberality and want of information displayed by the author quoted above, have elicited these remarks; but we wish to be understood as meaning no disrespect to English writers generally. It is from them we receive a considerable part of what we know, and we, of course, ought to pay them the tribute of our gratitude and veneration. There are, on both sides of the water, men of narrow and illiberal minds, who are provoked by prejudice and jealousy to slander those they ought to respect and love, as descendants from the same ancestors.

We have been imperceptibly drawn away from the subject of this paper, the epidemic that has appeared in New-York and New-England during the last winter. It is proposed to give a concise account of the symptoms of this disorder, its treatment, and the morbid appearances after death.

This complaint made its first appearance in the autumn of 1812, among the soldiers at Greenbush, and since that time its ravages have been remarkable in the army of the United States, in various places; at Plattsburgh, Burlington, Sacket's Harbour, Boston, Charlestown, &c. Its severity in the army is to be attributed to the sudden change of the mode of living of the newly enlisted soldiers, to intemperance, and to exposure to the weather. During the winter, it appeared among the citizens in Vermont, and the upper part of New-York, and at the close of winter in some of the interior towns of Massachusetts, and sporadically in various parts of the United States. Its fatality among the soldiers, and, in a few places, among the citizens, was considerable; but, so far as can be ascertained, it has not, in most places, increased the number of deaths beyond the usual proportion. The victims of this disease in Boston may have been between twenty and thirty in number, of which about half were soldiers.

soldiers. It is impossible to estimate the numbers affected with various forms of the complaint in the same place. They could not have been less than four or five hundred.

In the most characteristic cases, the disease commences with an acute pain in the side or breast, stricture across the thorax and difficulty of breathing, short distressing cough, chills, great prostration of strength, pulse a little accelerated, rather full, sometimes hard, but easily arrested by pressure. The tongue soon becomes yellow, then brown and dark-coloured, the countenance peculiarly livid, and the patient slightly delirious. Afterwards the cough increases, expectoration sometimes occurs, and the patient gets relieved on the third, fourth, fifth, or sixth day in some instances, while in others the disease runs on irregularly for some days longer. The heat of the body is greater than usual, but never approaches that of common inflammations. The skin is often moist from the beginning, both in mild and very bad cases. In many instances, the patient is first attacked with pain in the head, back, and limbs, severe chills, and very depressed pulse. In the worst cases, the pain in the side or head is dreadful, there is no cough, the stricture in the chest is agonizing, the patient becomes delirious, and dies in two or three days. Sometimes the complaint resembles a common pleurisy, except that the pulse is not so hard, the cough nor the heat so great, nor the progress so regular. A young officer, living in barracks, where a number of soldiers had died very suddenly of the disorder, having been exposed to cold and severe exertion, was attacked with pain in the left side and sickness at the stomach, at midnight. In the morning, on attempting to get out of bed, he fell on the floor. Being removed to a more comfortable situation, he was bled six ounces, and thus relieved from the pain in the side. The blood had a remarkable inflammatory buff, yet the pulse was not above 80, full, and very compressible. After this, an emetic was administered, which produced an evacuation of a small quantity of very dark-coloured mucus. His restlessness increased during the day, and at night the pain returned, for which a blister was applied to the side. The next morning, his tongue, at first pale, was very brown, and afterward became dry and dark-coloured. He had a slight cough, a stricture over the thorax, pulse, as at first, full yet compressible, pain in the side severe and distressing, excessive restlessness, and a degree of delirium. Six ounces of blood were taken, which relieved the pain in the side. He had small doses of calomel and opium every two or three hours; and, no evacuation from the bowels having occurred since the invasion of disease, a cathartic was ordered at noon,

noon. This did not operate till the following morning. On the third day, the pain was not heard of, the restlessness abated; and, on the fourth, all the symptoms were mitigated, without any remarkable evacuation. Calomel and opium were continued a day or two longer. The patient convalesced slowly at first, but got out of the house in a fortnight from his attack, and has since joined the army.

When the heart was the principal seat of disease, which happened sometimes, an intense pain struck the region of that organ, together with great palpitations, irregularity, depression, and annihilation of the pulse, syncope, and cold sweats; but in some cases, the pulse was very rapid, and not depressed. When the heart and lungs were affected together, there was a mixture of symptoms, though the symptoms of disease in one organ commonly predominated. Very frequently the abdominal region seemed to be the seat of disease. Then there was a pain and stricture across that part, attended sometimes with diarrhœa, and oftener with costiveness. Sometimes the head was most violently affected. The patient, seized with an intense pain in that part, soon became delirious, and died. This rarely occurred in our part of the country; but we have frequently witnessed cases of acute pain in one eye. These different appearances were accompanied with a peculiarity of pulse, such as before indicated, an irregular increase of heat, and a moist skin. They usually yielded to medical treatment with sufficient facility, except those remarkable cases of the head and heart. All these are to be considered as variations from the common appearance of the complaint.

Some physicians have been so fortunate as to be able to distinguish various stages of the disorder, and to suppose they could determine its critical and non-critical days. We must confess that we have distinguished nothing but want of uniformity and regularity, and an utter defiance of the laws which govern other diseases. Some cases were of the duration of a few hours, others of weeks; some were very slight, others very severe; some were attended with considerable heat and elevation of the pulse, many more were remarkable for a want of disturbance in the circulation proportionate to the other symptoms; some had an attendant cough, others, even where the side was excruciatingly painful, had no cough; some were attended with expectoration, most were without it, in a considerable degree. In fine, such was the discordance in the duration and symptoms of the cases of this complaint, that many could hardly be ranked under it, for any better reason, than that they differed from all other diseases. If we were called on to fix on any one external

symptom

symptom as most characteristic of the complaint, it would be the low state of the circulation, compared to its exaltation in most other diseases, with equally violent symptoms.

In order to prevent any misconception, it is proper to state, that the remarks made above were drawn from a careful observation of a few severe cases, and a great number of slight ones in the town of Boston.

The cause which *disposes* to this disease exists in the atmosphere. The *exciting causes* are, exposure to cold and moisture, and fatigue, especially after excesses and debauchery of any kind. So many extraordinary things have been thrown out as to the *proximate cause*, that we are unwilling to run the risk of incurring ridicule, by adding to the number. It seems necessary, however, to direct our attention to two or three remarkable circumstances, which may serve as a foundation for the conjectures of the ingenious. 1st. The part or texture primarily and mostly affected in this disease, is the *serous membrane*. When the thorax is attacked, the pleura, especially of the lungs, is diseased, or, in certain cases, the pericardium; when the abdomen, the peritoneum is deranged; and in the head, it is the tunica arachnoides. After the complaint has continued some time, the substance of the lungs gets disordered, and we see it swelled, hardened, and full of blood; and sometimes we have observed a redness of the mucous membrane of the bronchiæ. But these seem to be secondary derangements, for they are not observed in any organ where the serous membrane is not diseased, while the latter is often greatly disordered without any change in the organ it invests. In no instance has the substance of the brain been seen diseased, even when its membrane was most considerably affected, nor any of the abdominal viscera, when the peritoneum was diseased. The heart has been thought to be swelled in one or two instances, but this is an appearance difficult to judge of satisfactorily. The morbid appearances, besides those of the serous membrane, are therefore confined to the lungs. In that organ, the hardness and redness of its substance has been observed, in some instances, to be confined to small portions connected with inflamed spots in the pleura, and in others, where the membrane was uniformly affected, the swelling existed principally near the surface of the organ, from which we would infer, that the inflammation affected the pleura first, and extended from it to the lungs. 2d. The livid colour, the disposition to gangrene and sloughing, and the low state of the power of the heart, distinguish this inflammation of the serous membrane from common inflammation. It seems to be an inflammation peculiar to this disease.

These

These appearances serve to identify the disease with what was called petechial fever, in 1810. The apparent differences arise from the head having been most affected in the epidemic of 1810, and the lungs in that of the present season. In the former, however, the lungs were sometimes the principal seat of disease; as may be seen exemplified in case 11th, in the Report of the Massachusett's Medical Society: the morbid appearances of which precisely resembled those lately observed. While, in the course of the recent epidemic, various instances of morbid appearances in the head have been witnessed; and the symptoms in many of the most violent cases bear the closest resemblance to those of the disease of 1810. In both, the patients have been struck down suddenly as by light; in both, the head was first affected, when the disease was very violent; in both, the circulation was free from a disturbance proportionate to the other symptoms; the symptoms of different cases were equally variable from each other, and the progress in the same case equally irregular; the texture of the organ affected was the same, and often the organ itself was the same, and the appearance of inflammation peculiar, and alike in both. The manner in which the two disorders are affected by remedies, is certainly not similar. The epidemic of 1810 would not bear evacuations in any proportion of cases to that of 1813. Evacuations of some kind were always necessary and beneficial in the latter; but in the former, all evacuations were sometimes injurious, and always required to be very sparingly and cautiously employed. The dissimilarity in this respect, does not, however, show the two diseases to be of different character; as many, perhaps most epidemics, vary as much as these in the manner in which they are influenced by medicine. Cynanche maligna bears an inflammatory character in some seasons; but, in others, a putrid one: it sometimes requires evacuations, which at others are deleterious. In the symptom which gave name to the disease of 1810, the petechial eruption, this disease is entirely deficient. Some persons may be disposed to consider this as a very important difference, which ought to form a line of distinction between the two complaints; but those who saw much of the epidemic of 1810, are aware that the number of cases which exhibit genuine petechiæ is extremely small, and that this very interesting and formidable appearance was in most places so rare, as to be considered an object of curiosity. Its employment to designate the disease must, therefore, be considered very unfortunate.

The epidemic, of which we speak, is not contagious.

No specific medicine or mode of practice has been found

appropriate to the cure of this disorder. Great contentions have existed as to the utility of bleeding on the one side, and the use of stimulants on the other; but the truth is, that the character of the disease is so infinitely various, that the treatment, to be successful, must be equally varied, and adapted, with cautious discrimination, to the existing state of symptoms. When the violence of local pain indicates the certainty of local disease, if the pulse is not too much depressed, bleeding may be considered the first and best remedy. It must be moderate, and cannot be repeated, in true cases of the epidemic, more than once or twice. In the most violent cases, bleeding, in the first stage, would prove fatal; and in many others, the pulse is too weak to justify it. It may be laid down as a general rule, that when the pulse will bear it, this remedy will be highly beneficial. Should the patient be depressed by it, moderate cordials may be employed temporarily. In no other circumstances has the use of cordials or stimulants been indicated during the present season, if we except some of those violent cases which proved fatal in a few hours. After bleeding, emetics of ipecacuanha with calomel will be found useful, provided the nausea of the stomach indicates them. When employed under that circumstance, there has usually been an evacuation of very thick green-coloured mucus; but when this remedy was not called for, a cathartic remedy has been preferred, and has usually produced discharges of the same green-coloured mucus of thinner consistence, and almost always with a degree of relief. No one, perhaps, will hesitate, in a disease commonly attended with such remarkable local affection, to employ blistering speedily, extensively, and repeatedly. Its effects are admirable. Small doses of calomel with opium and the tartrite of antimony, squills and seneka, are the best medicines for promoting expectoration. The gums have rarely become decidedly affected by calomel, so that the disorder cannot be set down as one of those readily cured by the preparations of quicksilver. As soon as the violence of the disease is subdued, tonics should be employed with due caution. The most suitable seems to be cascarilla employed in an infusion. The want of the critical expectoration which takes place in common pleurisy, is, perhaps, the cause of a dry and uncomfortable cough remaining after the bad symptoms have subsided, from the irritation produced by vessels not yet emptied of the blood they had received. In this state of things, opium is the best medicine; in other stages of the complaint, given in small doses, it has appeared to be at least a safe, and sometimes a useful, remedy.

The morbid appearances after death need not be generally sta ed,

stated, as the two following cases will sufficiently exemplify them. The first of these cases affording a specimen of the most common and least remarkable appearances, and the second of the most extraordinary changes.*

The first was a soldier of a robust frame and ample chest, who, as well as his comrades, was in the habit of using ardent spirits very freely, and was lodged in a dirty and uncomfortable situation. He was suddenly attacked with pain in the right side, a severe stricture across the chest, and difficult respiration, with very slight cough. The pulse rather more frequent than natural, and full, but very compressible. Heat of the skin above the natural state. He was bled, with temporary relief from pain; but the bleeding was not repeated, nor did he have other medicine than calomel and opium. On the second day, his countenance was very livid, and his brain disturbed. On the third, the respiration was very laborious, pulse quicker and smaller; there was great restlessness, and complete delirium. On the fourth, he died.

Although I did not attend this patient, an opportunity was afforded me of examining the body very carefully. In the brain there was no very remarkable change of structure. The superficial veins were rather full; the little vessels of the medullary substance charged with blood; the plexus choroides was quite swelled, and contained a little water, and its interposed membrane was remarkably tough. When the thorax was opened, the heart and left lung were seen to be of a tolerably healthy appearance; but the right lung was very livid in every part, especially on the anterior surface. Its pleura was completely discoloured by blood in the small vessels, which rendered it black, in some parts, and the appearance of the pleura lining the ribs was similar. Over the surface of the lung was spread a thin layer of lymph, which, entering between the lobes, glued them together. The substance of the lung was hard, for some little distance from the surface, but the central part softer. This organ was generally of a dark colour within. The abdominal viscera exhibited no vestige of disease. The stomach contained a little watery fluid, and its mucous coat was reddened. The intestinal canal appeared quite healthy. The liver was very large, and rather harder than common. The gall-bladder large, full of bile of a good appearance, and the ducts quite pervious.

The second patient was a citizen, whom I did not visit till after he had been ill a few days, when he was evidently be-

* These dissections were made by Dr. J. C. Warren.

yond the reach of medical aid. His story was, that he was first attacked with chills, pain in the forehead and side; for which he employed liberal potations of hot brandy and water, or gin and water. Afterwards he found that his bowels became painful, and, when I saw him, it was difficult for him to determine in what part he suffered most severely; though he seemed disposed to consider the abdominal pains to be most distressing. The region of the abdomen was extremely tumid, and quite tender. The pulse was depressed, so that at times it could scarcely be perceived. The extremities were cold and damp. There was a stricture, like a cord, over the breast, a slight cough, and very difficult respiration. The tongue was black and dry. The eyes languid and sunk. In this state he continued eight days longer, his distress being occasionally relieved by opium. The functions of the brain were not greatly impaired till three days before death, when he became insensible.

The body was examined the day after death. The brain was very firm. Its superficial veins were shrunk, but exhibited satisfactory marks of having been much distended. The tunica arachnoides had many spots of coagulated lymph, by which the hemispheres were more closely connected than common. Some water was found in the ventricles. The heart was in a sound state. The left lung much discoloured, and partially hardened. The right lung was discovered lying in the upper part of its cavity, covered by yellow coagulated lymph, its substance remaining entire. The lower part of the same cavity was occupied by a kind of cyst formed by a recent concretion of lymph, about a quarter of an inch thick, on all sides, soft, and readily torn; and enclosing, in its cavity, more than three quarts of thick and discoloured serum. The anterior surface of the abdominal organs, the liver, spleen, stomach, and intestines, was covered with a most extraordinary thick coat of very yellow lymph, which cemented all these parts into one mass, and united them to the anterior parietes of the abdomen. This lymph was, in many places, an inch thick, and might be separated in large masses. The whole peritoneal surface of the organs, and of the parietes of the abdomen, was in a greater or less degree covered with lymph. By the union of the different organs, the appearance of these parts was rendered as confused as is possible to conceive. In various places, the adhering parts formed cysts of different sizes, which were usually filled with serum containing a portion of semi-purulent lymph. The peritoneum and pleura were generally very tender, and in some parts had the aspect of approaching gangrene.—*New-England Journal.*

For

For the Medical and Physical Journal.

Upon the evil Practices of sundry Druggists in neglecting the Regulations enacted by the London College of Physicians in their Pharmacopœia.

FROM the age of Nicolaus Præpositus, of Tours, who wrote the first General Dispensatory, the compositions in which were principally taken from Mesue and from Nicolaus de Salerno, down to the last London Pharmacopœia, so many mistakes have arisen from the adoption of different formulas, and from the arbitrary presumption of chemists, that the executive, with a prudent attention to the public welfare, have sanctioned and enforced the regulations which the College of London has, at different times, judged proper to institute.

I am not discussing here the merits or demerits of the last London Pharmacopœia. I have perused, at different times, in your Numbers, some very appropriate strictures on some of its articles; but what will be your surprise to be informed, that any mischief can have ensued from those remarks, and that those very strictures have been confidently broached as adequate apologies for deviating from the orders of the College! Now, however criticism may have succeeded in detecting defects in some of its parts, no experienced man has ever denied, that, for the benefit of the community, it is essentially requisite to furnish the profession with some general standard of compounding medicine, by which, as the proclamation expresses it, all deceits, differences, and uncertainties, may effectually be prevented, and the art of medicine, at all times conjectural and replete with difficulties, may not be rendered more so, by the caprice and presumption of ignorant pretenders, whose quackery might strike at the stamina of the public health. It is for this purpose that his Majesty has thought fit, by the advice of his council, to give effect to the labours of the College, and "hath also charged and commanded all and singular apothecaries and others, whose business it is to compound medicine, &c. &c. within any part of his Majesty's Kingdom of Great Britain called England, &c. &c., that they, and every of them, after the publication of the Pharmacopœia of the London College, do not compound any medicine in any other manner than is directed by the College."

It is to be lamented, from the many alarming violations daily practised by chemists and druggists, that they are not *practically taught* that they are liable to be proceeded against "for such their contempt and offences, according to the

utmost

utmost severity of the law." It really becomes a most serious evil, and calls aloud for redress, when the most consummate skill and experience are rendered nugatory and unavailing, by the unauthorised and spontaneous manner with which many druggists allow themselves to make up prescriptions; so that a medicine, thus compounded, shall have totally different properties to what its prescriber intended. This is not merely the case with minor druggists, but with houses of the first reputation, who supply our apothecaries with their medicines, and are permitted with impunity to *supersede the orders of the College*. The last London Pharmacopœia may have its exceptions, but these are at least innocent: let us not, by discarding it, draw down upon us the still greater evil of adopting the succedaneums of chemists—

> 'Tis better that we bear the ills we have,
> Than fly to others which we know not of.

If it were practicable to analyse every compound medicine before we ordered it, little injury might possibly acrue from the variety of private formulas assumed by different chemists, especially in *districts more remote from the vigilance of the College*; but, as this is not feasible, who, while he gropes in the dark, can prescribe without fear and trembling? If we take a cursory view of some of the articles of the last London Pharmacopœia, almost in the very first medicine, the citric acid, an article of great expenditure in private practice, most of the shops have a compound of citric and tartaric acid, some in equal parts. The last of these articles, you well know, is not half the price of the former. It is no excuse for the chemist to say, that the small quantity of neutral salt that the tartaric acid makes with the soda or potass in the saline draught, can do no harm. Admitting it were the case, is it to be endured that a chemist shall usurp the province of physician? is he to reason on the propriety of adopting succedaneums in medicine? who gave him a license to be a censor of the College? If this is connived at, a door is opened for abuse which is pregnant with the most fatal prospects, and threatens the lives of millions. If a chemist must exercise his ingenuity, let it be in licensed nostrums, not by surreptitiously introducing cheaper or more convenient succedaneums in prescriptions, by which the reputation of the prescriber and the health of the patient are made the victims. If, however, they are bent upon following up their antiquated prejudices, or more probably their own private interest and convenience, let them sue government for a charter to erect a College at York, which may

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be made the standard for all the northern counties, in some of which there appears such a gross dereliction from the orders of the London College. I could mention many abuses, but what I shall here introduce will answer my purpose.

The Confectio Aromatica should contain nearly one quarter of Testæ præparatæ, and is therefore preferred by prescribers, on that account, in complaints where there is a laxity or redundant acidity of the intestines. But how are we to look for either antacid or absorbent properties from the simple Pulvis Aromaticus, or Capsicum with syrup? If no direct injury ensues, yet the value of the remedy and the accuracy of the prescription is impaired, because we take for *granted, at the time of prescribing, that it is made up according to the last orders of the College.*

A great part of the Sp. Ammoniæ is made from old formulæ in use a century back. Instead of volatile oil, which can only be dissolved in the genuine Sp. Ammoniæ, when the ammonia in the solvent is caustic, we now and then see an infusion of cloves, or other aromatics, mixed with Sp. Ammoniæ, made with Carbonate of Ammonia; a good reason why they cannot obey the orders of the College in using the Volatile Oil of Cloves, which would *float on the surface*, from its insolubility. It should contract besides an amber tinge by standing, from the oil of cloves. A certain knight of the pestle, who wanted braying in his own mortar, excused himself in deviating from the prescribed method of the College, which requires the use of Caustic Ammonia and Volatile Oil in the Sp. Ammoniæ, by gravely assuring his hearers, that neither the Sp. Ammoniæ or the Sp. Ammoniæ Aromat. were ever used internally, never given in the stomach!!! You will no doubt be eager to record so egregious a discovery, because the profession has been blundering all along, according to this gentleman, in administering them even to infants, in women in hysterical affections, and in both sexes, as a stimulant and antispasmodic, with incredible advantage. Of course, whatever objection is made to the composition of the Sp. Ammoniæ, obtains equally when applied to all those medicines that contain it, as the Sp. Ammoniæ Fœtid., Tinct. Valerian Ammoniat., and Tinct. Guaiac. Ammoniat.

But is this strange, when I have been credibly informed that the Liquor Ammoniæ and the Liquor Ammoniæ Carbonatis are in some shops used indiscriminately? I have examined with nicety similar drugs in the metropolis, without corresponding inaccuracies. I have never, for instance, on analysing the neutral salts, found them so sophisticated or impure, such as the Nitras and Carbonas Potassæ, the Carbonas

bonas and Sulphas Magnesiæ, the last of which seldom yields in the experiments and specimens which I have *recently* adopted, the proper proportion of magnesia on the addition of Carbonas Potassæ. Indeed an accurate inspection of the chrystallization easily points out the presence of a cheaper salt, the Sulphat of Soda. I have heard of much confusion, and sometimes serious mischief, which has arisen from confounding the Liquor Antimon. Tartariz. with the Vinum Antimonii Tartariz. Nothing but sheer carelessness can apologise for this neglect, and, where such instances can be proved, they should be made objects of the penalty. I say nothing of the custom of compounding the Sp. Ammon. fœtid. with a simple admixture of Spir. Ammoniæ and Tinctur. Assafœtid. or of the æthers, and especially the Æther Sulphuricus, which is notoriously in many cases of inferior purity to that ordered by the College, as is indicated both by its specific gravity, and the precipitate on adding a solution of muriate of barytes.

These abuses, I believe, are not peculiar to any quarter. If a druggist should choose to make his Pulv. Scammon. Composit. or his Tinct. Aloes Composit. the first without the hard extract of jalap, and the last with half the proportion of aloes, according to the Edinburgh College, are such aberrations to be accounted venial? I am not contending which is the best Pharmacopœia, that of London, Edinburgh, or Dublin, or that any one of them is free from objection; but that for accuracy's sake there must be *only one acted upon in the same place, and that one in England we know by the law of the land to be the London Pharmacopœia.* If some of your correspondents will favour the public with their researches in other districts, it may possibly *call the attention of the College* to the many very flagrant abuses, which draw down unnecessary opprobrium on our art, and inflict a serious blow on the health of the community.

Yorkshire. *A regular Physician.*

For the Medical and Physical Journal.

Description of a new Invented Spring Truss, to guard against the Inconvenience of Ruptures; by J. WHITFORD, Surgical Instrument Maker and Cutler to St. Bartholomew's Hospital, &c.

A VARIETY of Trusses has of late years been offered to the notice of the public, none differing, in my opinion, in the mode of applying the pad to the diseased part. When the pad of the truss is applied in the usual way, if the patient

patient uses violent exertion, as jumping, coughing, sneezing, lifting heavy weights, &c. the part will, if the rupture be of long standing and very large, frequently slip from under, or before, the front part of the pad, which causes great uneasiness to the wearer, who, at the time of the accident, may not be at a convenient place to remove the truss, so as to return the prolapsed parts into the cavity of the abdomen. When this happens, it is generally attended with the most dangerous consequences by the pressure of the truss on the intestines, &c. I have, by long perseverance and practice in that part of the mechanism in trusses, endeavoured to remedy that defect, by preventing such unpleasant occurrences happening in future. It is not my intention to enter upon anatomical observations as to the structure of the human frame, but to confine myself principally to the mechanism of the truss, and to state as plainly as possible, to those who are afflicted with hernia, where the pad of the truss ought to be applied, in order to prevent the possibility of the ruptured part descending. The pads of trusses are in general applied considerably below where they ought to be, that is, too near to the os pubis. Hernia usually makes its first appearance nearly midway between the symphysis pubis and the anterior superior spine of the ilium; from thence it descends through the external opening which is situated just above the pubis, that is, having its basis resting upon the pubis, and its apex situated obliquely upwards and outwards; this is the part where the pad of the truss is usually applied; but it will appear evident on reflection, that, in order to effect a cure, it should be applied upon the upper opening, where the hernia first makes its appearance. It not unfrequently happens that the hernial sac, omentum, &c. has remained so long in the scrotum, that, by adhesion, or some other cause, it is impossible to return them into the cavity of the abdomen; it is necessary, in these cases, to inclose the parts in a strong bag truss, which will generally give ease by supporting the enormous weight that frequently occurs. The action and mode of applying the new truss to the ruptured part, will be seen by the Engravings introduced.

I shall now endeavour to point out the improvement that has been made in the truss.

Fig. 1 represents the spring uncovered, with a slight curve towards the neck of the spring from A to B, so as to allow the spring to adapt itself to the hollow of the groin from A to C. The neck of the spring is turned inwards and outwards, to act as a pair of spring forceps: the intention of the neck of the spring being bent, as exhibited, is, that the pressure shall be on the diseased part principally, and not

to depend entirely on the power of the main spring from the back to the front, as is the case where great pressure is wanted to keep up the ruptured part. By this alteration you have a double spring, and on the inner spring is placed the pad, which pad is to be placed at the front part of the hernial ring; and, by the power of this spring, it obviates the necessity of having the circular spring so strong, the painful effects of which have been so much complained of. The great advantage this truss has over others is, that the pad is placed upwards instead of downwards; and, by this means, it is impossible for the hernia to pass by.

Fig. 2 shows the spring covered as it is to be worn: the pad is raised to a considerable thickness in the middle, and of very soft materials; the outer edge of the pad is left flat, as is represented at B, B, B. The rupture having been properly reduced, the projecting part of the pad is now to be placed exactly over the opening where the hernia descends, so that the pressure obtained by the extra spring is sufficient to press the parts so close together as to leave no doubt that, in the course of time, and more particularly in young subjects, an adhesion will take place, and in that case a cure will be obtained.

This fig. represents also where the pad is fixed to the inner spring, for in trusses in general the pads are fixed at the extreme neck of the spring; whereas this pad is now placed full three inches from the neck of the spring upwards, and, when properly applied, it is impossible for the ruptured part to descend.

It is likewise necessary to observe, that, in order to assist the truss in performing a cure, the rupture should never be suffered to descend, for it is by constant pressure a cure is likely to be obtained; to assist which I have made a bandage, which is called the night truss, without springs, and may be worn without any inconvenience.

Fig. 3 represents the truss applied on the right side, and secured by means of a front and under strap; the under strap is necessary in large and long-standing ruptures, as it will keep the truss more secure; but, in slight and recent hernia, it may be dispensed with, as the application of the pad in the new method will keep it steady.

Directions for Applying the New-Invented Truss.—When the intestine is returnable, the patient should lay himself on his back, bending his thigh a little upwards to relax the integuments; then the tumour is to be gently pressed upwards with his hand, until the hernia has ascended into the cavity of the abdomen; when this is done, apply the projecting part of the bolster of the spring pad to the opening where

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the hernia descends; and, by keeping the parts pressed close together in this manner, a perfect cure will be obtained, especially if the disorder is recent, and in a child; and even in adults the ruptured part will become so contracted as not to admit of a falling-down of the intestine. Should they not be perfectly closed, if this method of applying the new truss is practised, I make no doubt it will never fail of success. J. WHITFORD.

47, West Smithfield.

For the Medical and Physical Journal.

Remarks on Dr. Bateman's Description of Elephantiasis.

AS you have invited communications on the subject of Elephantiasis, and as, with other students, it is my wish to make the most of my time whilst in London, I shall be thankful for a small corner in your Journal.

On examining the last edition of Dr. Bateman, I observe that he now tells his readers he has seen two instances of the disease. In his former edition, he acknowledges that he had seen none. At that time, therefore, we were prepared to meet with only the descriptions of other writers; but, after the author had seen two cases, we might have expected his own account. Instead of which, even the point which he formerly considered doubtful, but on which he has now had an opportunity of satisfying himself, is left in the same uncertainty as before. "Dr. Adams," he still says, "contrary to all other authorities, observed, in the lazars of Madeira, an actual wasting of the generative organs in men who had been seized subsequent to the age of puberty, and a want of the usual evolution of them in those who had been attacked previous to that period." "Is the Elephantiasis of Madeira," he adds, "now less virulent than that of former times? has it undergone some change in its character? or is the ancient account of the disease incorrect?"*

Either these inquiries are important, or they should have been omitted. If they are important, why have we not Dr. Bateman's answer to them as far as his knowledge extends? That he has now seen the disease, we have his own confession. That he has seen the case in this hospital, I can answer. Why then have we not a solution of this inquiry as far as that case informs him? Why are we still referred to contradictory accounts from authors whom Dr. Bateman

* Synopsis, 3d edit. p. 303.

professes to undervalue, instead of his own description of what he has seen, or, which would have been the same, a transcript of Dr. Adams's description, or of the copy made by Dr. Bateman for the Cyclopœdia.

I will acknowledge to you the disgust I felt at still reading, that "accurate descriptions of Elephantiasis, &c. are still among the *desiderata* of the pathologist." So they must for ever remain, of this and of all other diseases, if we have only the hard names and contradictory accounts of Greeks, Moors, Arabians, and Africans, instead of a succinct description of what passed under the author's own eye.

As a young man, I may seem to be writing freely, but, recollecting how many of my brethren may be deprived of the present opportunity of seeing this extraordinary disease, I cannot conclude without assuring them that Dr. Adams's description is such as renders it impossible to mistake it; and that by that description alone, our house-surgeon, Mr. Ashburner, immediately recognised the complaint, when he saw the boy in the examining room. At your last account of him he was under the measles. He has recovered and appears much better than before.

A Student at St. Bartholomew's.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Memoirs of the celebrated Dr. Harvey, from Notes collected from the Bodleian Library and Ashmolean Museum.

GUL. HARVEUS, An. ætat. 10, in Schola Cantuar. primis doctrinæ rudimentis imbutus; 14, Col. Gonvil. et Caii Alumnus; 19, peragravit Galliam et Italiam; 23, Patavii Præceptores habuit Eust. Radium, Tho. Minad. H. Fab. ab Aquápend. Consul Angl. 16* fit; 24, Doctor Med. et Chirurg. Reversus Lond. praxin exercuit. et uxorem† duxit; 25, Coll. Med. Socius; 37, Anatom. et Chirurg. Professor; 54, Medicus Regius factus. Scripsit de Motu Sanguinis, et de Gen. Animal. Obiit 30 Jun. MD.CLVII,

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* Sic. Edit. † Smyth.

Ætat.

Ætat. 80.* (But I well remember that Dr. Alsop, at his funeral sayd, that he was 80 wanting one; and that he was the eldest of 9 brethren.)

He lies buried in a vault at Hempsted in Essex, wch. his brother Eliab Harvey built, he is lapt in lead, and on his brest in great letters Dr. WILLIAM HARVEY. I was at his funerall, and helpt to carry him into the vault.

In the library at the Physitians' Colledge, was the following inscription above his statue, (which was in his docterall robes).

GUL. HARVEUS, Natus A.D. 1578, Apr. 2. Folkston,† in Com. Cantii, Primogenitus Tho. Harvei et Joanæ Halk. Frat. Germani, Tho. Jo. Dan. Eliab. Mich. Mat. Sorores. Sarah, Amey.

Under his white marble statue, on the pedestall, thus,

GULIELMO HARVEO,
Vivo,
Monumentis suis immortali,
Hoc insuper
Coll. Med. Lond.
Posuit
Qui enim SANGUINIS MOTUM
(ut et ANIMAL ORTUM) dedit
meruit esse
STATOR Perpetuus.

Dr. Harvey added (or was very-bountifull in contributing to) a noble building of Roman architecture (of rustique work with Corinthian pillasters) at the Physitians' College aforesaid, viz. a great parlour, a kind of convocation-house for the fellows to meet in belowe; and a library above. On the outside, on the freese, in letters 3 inches long, is this inscription, SUASU ET CURA FRAN. PRUJEANI, PRÆSIDIS, ET EDMUNDI SMITH, ELECT. INCHOATA ET PERFECTA EST HÆC FABRICA. AN. MDCLIII.

All these buildings and remembrances were destroyed by the generall fire.

He was always very contemplative, and the first yt. I heare of yt. was curious in Anatomie in England. He had made dissections of froggs, toades, and a number of other animals, and had curious observations on them, which papers, together with his goods, in his lodgings at White-hall, were plundered at the beginning of the rebellion, he being for the king, and with him at Oxon; but he

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* Over Dr. Harvey's picture in the great parlour under the library, at the Physitians' College at Amen-corner, (burnt.)

† Borne in the house which is now the post house, a fair stone built house, which he gave to Caius Coll. in Cambridge, with some lands there, in his will. His brother Eliab would have given any money or exchange for it, because 'twas his father's and they all borne there, but the doctor (truly) thought his memory would better be preserved this way, for his brother has left noble seates, and about £3000 per annum at least.

often

often sayd, that of all the losses he sustained, no griefe was so crucifying to him as the losse of these papers, wch. for love or money he could never retrieve or obtaine. When K. Ch. I. by reason of the tumults left London, he attended him, and was at the fight of Edge-hill with him; and, during the fight, the Prince and D. of Yorke were committed to his care. He told me, that he withdrew with them under a hedge, and tooke out of his pocket a booke and read; but he had not read very long before a bullet of a great gun grazed on the ground neare him, which made him remove his station; he told me yt. Sir Adrian Scrope was dangerously wounded there, and left for dead amongst the dead men, stript, which happened to be the saving of his life. It was cold clear weather, and a frost that night; which staunched his bleeding, and about midnight, or some hours after his hurt, he awaked, and was faine to drawe a dead body upon him for warmeth sake.

After Oxford was surrendered, which was 24 July, 1646, he came to London, and lived with his brother Eliab, a rich merchant in London, on —— hill, opposite to St. Lawrence, Poultry, where was then a high leaden steeple, (there were but two, viz. this and St. Dunstan's in the East, and at his brother's country house at Roehampton. His brother Eliab bought, about 1654, Cockaine-house, now (1680) the Excise Office, a noble house, where the doctor was wont to contemplate on the leads of the house, and had his severall stations, in regard of the sun, or wind. He did delight to be in the darke, and told me he could then best contemplate.

He had a house heretofore at Combe, in Surrey, a good air and prospect, where he had caves made in the earth, in which in summer time he delighted to meditate. He was pretty well versed in mathematiques, and had made himselfe master of Mr. Oughtred's Clavis Math. in his old age; and I have seen him perusing it, and working problems not long before he dyed, and that book was always in his meditating apartment. His chamber was that room which is now the office of Elias Ashmole, esq. where he dyed, being taken with the dead palsey, which took away his speech; as soon as he was attaqued, he presently sent for his brother and nephews, and gave one a watch, another another thing, &c. as remembrances of him. He dyed worth £20,000, wch. he left to his brother Eliab. In his will, he left his old friend, Mr. Tho. Hobbes, £10, as a token of his love.

He was wont to say, that man was but a great mischievous baboon.

He would say, that we Europeans know not how to order or govern our woemen, and that the Turkes were the only people [who] used them wisely.

He had been physitian to the Lord Ch. Bacon, whom he esteemed much for his witt and style, but would not allow him to be a great philosopher. Said he to me, "He writes philosophy like a Ld. Chancellor," speaking in derision.*

About

* This must relate to Bacon's physiological opinions as exemplified

About 1649, he travelled again into Italy, Dr. George, now Sir George Ent, then accompanying him.

At Oxford, he grew acquainted with Dr. Charles Scarborough, then a young physitian, (since by Ch. II. knighted) in whose conversation he much delighted; and whereas before, he marched up and downe with the army, he took him to him and made him ly in his chamber, and said to him, "Prithee leave off thy gunning, and stay here, I will bring thee into practice." I remember he kept a pretty young wench to wayte on him, wch. I guesse he made use of for warmth's sake, and tooke care of her in his will, as also of his man servant. For 20 years before he dyed, he tooke no manner of care about his worldly concerns, but his brother Eliab, who was a very wise and prudent manager, ordered all not only faithfully, but better than he could have done for himselfe. He was, as all the rest of the brothers, very cholerique, and in his younger days wore a dagger (as the fashion then was, nay I remember my old schoolmaster, Mr. Latimer, at 70, wore a dudgeon, with a knife and bodkin, as also my old grandfather, Lyte, and Alderman Whitson, of Bristowe, wch. I suppose was the common fashion in their young dayes), but this Dr. would be apt to drawe out his dagger upon every slight occasion.

He was not tall, but of the lowest stature, round faced, olivaster (like wainscott) complexion; little eie, round, very black, full of spirit; his haire was black as a raven, but quite white 20 yeares before he dyed.

I first sawe him at Oxford, 1642, after Edgehill fight, but was then too young to be acquainted with so great a doctor. I remember he came severall times to our Coll. (Trin.) to George Bathurst, B. D. who had a hen to hatch eggs in his chamber, which they dayly opened to see the progress and way of generation. I had not the honour to be acquainted [with] him till 1651, being my cos. Montague's physitian and friend. I was at that time bound for Italy, (but to my great grief dissuaded by my mother's importunity). He was very communicative and willing to instruct any that were modest and respectfull to him. And in order to my journey, dictated to me what to see, what company to keep, what bookes to read, how to manage my studyes; in short, he bid me go to the fountaine head, and read Aristotle, Cicero, Avicenna, and did call the neoteriques s..t breeches. He wrote a very bad hand, which with use I could pretty well read. I have heard him say, that after his booke of the Circulation of the Blood came out, he fell mightily in his practice, and 'twas believed by the vulgar,

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fied in his *Historia Vitæ & Mortis*, the work which produced so much wit in the Tristram Shandy, concerning radical heat and radical moisture. Harvey's mode of inquiry was exactly such as Bacon pointed out in his Nov. Organum. But it must be admitted, that Bacon's only physiological work savours much of precedents, in the Lord Chancellor Style.—Edit.

that

that he was crack-brained; and all the physitians were against his opinion, and envyed him; with much adoe at last in about 20 or 30 yeares time, it was received in all the universities in the world, and, as Mr. Hobbes sayes in his book, "De Corpore," he is the only man, perhaps, that ever lived to see his owne doctrine established in his life-time.

He understood Greek and Latin pretty well, but was no critique, and he wrote very bad Latin. The Circuitus Sanguinis was, as I take it, donne into Latin by Sir George Ent, as also his booke de Generatione Animalium, but a little booke in 12mo. against Riolan (I thinke) wherein he makes out his doctrine clearer, was writt by himselfe, and that, as I take it, at Oxford.

His Maj. K. Cha. I. gave him the wardenship of Merton Colledge, as a reward for his service, but the times suffered him not to receive or enjoy any benefit by it.

He was physitian and a great favourite of the Lord High Marshall of England, Tho. Howard, Earl of Arundel and Surrey, with whom he travelled as his physitian in his ambassade to the Emperor ———, at Vienna, Ao. Dni. 163-. Mr. Hollar (who was then one of his excellencie's gentlemen) told me, that in his voyage, he would still be making of excursions into the woods, making observations of strange trees and plants, earths, &c. and sometimes like to be lost. So that my Lord Ambassador would be really angry with him, for there was not only danger of thieves but also of wild beasts.

He was much and often troubled with the gowte, and his way of cure was thus: he would then sitt with his legges bare, if it were frost, on the leads of Cocksine-house, putt them into a payle of water, till he was almost dead with cold, and betake himselfe to his stove, and so 'twas gone.

He was hott headed, and his thoughts working would many times keep him from sleeping: he told me, that then his way was, to rise out of his bed and walke about his chamber in his shirt, till he was pretty coole, i. e. till he began to have a horror, and then returne to his bed, and sleep very comfortably.

I remember he was wont to drinke coffee, which he and his brother Elias did, before coffee-houses were in fashion in London.

All his profession would allowe him to be an excellent anatomist, but I never heard any that admired his therapeutique-way. I knew several practitioners in this towne (London) that would not have given 3d for one of his bills; and that a man could hardly tell by one of his bills what he did aime at.

He did not care for chymistrey, and was wont to speak against them,* with undervalue.

It is now fitt, and but just, that I should endeavour to undeceive the world in a scandall, that I find strongly runnes of him, wch. I have mett amongst some learned young men: viz. that he made

* Sic Edit.

himselfe

himselfe away, to putt himselfe out of his paine, by opium; not but that, had he laboured under great paines, he had been readie enough to have donne it, I doe not deny, that it was not according to his principles upon certain occations to ———, but the manner of his dyeing was really and bonâ fide thus, viz. the morning of his death, about 10 o'clock, he went to speake, and found he had the dead palsey in his tongue, then he sawe what was to become of him, he knew there was then no hopes of his recovery, so presently sends for his young nephews to come up to him, to whom he gives one his watch,* to another another remembrance, &c. made sign to —— Sambroke, his apothecary, in Black-fryars, to lett him blood in the tongue, which did little or no good, and so he ended his dayes. His practice was not very great towards his latter end, he declined it, unlesse to a speciall friend,—e. g. my Lady Howland, who had a cancer in her breast, which he did cut off and seared, but at last she dyed of it.

He rode on horseback with a foot-cloath to visitt his patients, his man following on foot, as the fashion then was, wch. was very decent, now quite discontinued. The judges rode also with their foot-cloathes to Westminster-hall, wch. ended at the death of Sir Rob. Hyde, Lord Ch. Justice. Anth. E. of Shaft. would have revived [it], but several of the judges being old and ill horsemen would not agree to it. The scandall aforesaid is from Sir Charles Scarborough's sayings that he had, towards his latter end, a preparation of opium, and I know not what, which he kept in his study to take, if occasion should serve, to putt him out of his paine, and which Sir Charles promised to give him: this I believe to be true; but do not at all believe that he really did give it him. The palsey did give him an easie passeport.

An Account of some Experiments on Animal Heat; by John Davy, M. D. F. R. S.—The recent inquiries of Mr. Brodie have rendered questionable the different prevailing hypotheses relative to animal heat, and have shown that fresh investigation is necessary, before we can expect to arrive at any accurate theory.

In the present uncertain state of our knowledge, three circumstances are particularly deserving of attention, viz. the relative capacities of venous and arterial blood for heat, their comparative temperatures, and the temperatures of different parts of the animal body.

On the first of these subjects we possess only the experiments of Dr. Crawford, which I believe have not yet been repeated, notwithstanding they form the basis of his hypothesis.

On the second, little inquiry has been made, and especially of late years, since the improvement of the thermometer.

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* 'Twas a minute watch, wth. wch. he made his experiments.

And on the third, the observations that have been collected are very few in number, and, with the exception of those of Messrs. Hunter and Carlisle, are scarcely, perhaps, deserving of confidence.

Such were the inducements that led me to the consideration of each of these subjects apart, and to endeavour to acquire by experiment some more certain knowledge respecting them. The experiments that I have made will be described in the two following sections, and in the last will be offered the few remarks and conclusions which naturally arise, and are fairly deducible from the results.

1. *On the Capacities of venous and arterial Blood for Heat.*

I must premise, that my object has been to endeavour to ascertain the relative capacities of venous and arterial blood for heat, rather than their exact specific caloric. The latter, from many circumstances, is difficult to be accomplished; whilst the former is comparatively easy, and in a theoretical point of view is probably equally useful.

I have employed both the methods commonly used. I shall mention most of the experiments that I have made, without noticing the repetitions of them, and shall begin with those on the times of cooling of equal volumes of venous and arterial blood.

The blood used was from the jugular vein and the carotid artery of a lamb about four months old. It was received in bottles; and, to remove the fibrin, which is a great impediment in experiments of this kind, it was immediately stirred with a wooden rod. In respect to colour, the difference between the venous and arterial blood was not so great as in the sheep's; and this in a great variety of instances I have always observed, the venous being of a less dark hue. The specific gravity of the venous blood, without the fibrin, was found to be 1050, and that of the arterial 1047.

A glass bottle equal in capacity to 2518 grains of water, and weighing 1332 grains, was filled respectively with water and venous and arterial blood of the temperature of the room 62, about four hours after the blood had been drawn, during which time each bottle had been closely corked. A delicate thermometer, by means of a perforated cork, was placed in the middle of the liquid. The bottle was then plunged into water of the temperature 140 Fahrenheit; and, when the mercury had risen to 120, the bottle was quickly wiped and suspended in the middle of the room, and the progress of cooling was noticed every five minutes, till the thermometer had fallen to 80. The following were the general results obtained:

Water cooled from 120 to 80 in	91 minutes
Arterial blood in -- -- --	89
Venous blood in -- -- --	88

Considering therefore the capacity of water for heat to be denoted by 1000, neglecting the effect of the glass bottle producing a

difference only of about half a minute, and the same in each instance, and dividing the times of cooling by the specific gravity, the relative capacities of venous and arterial blood without fibrin appear to be as ·921 and ·934.

In the following experiments the same kind of blood and the same quantity was used as in the preceding. The mixtures were made in a very thin glass receiver, containing a delicate thermometer. The temperature of the room was 66.

Hot water temperature 121; cold water 61. Mixture of the two 99, after two minutes 89, after three 88, and after eight 87.

Venous blood 121. Water 62·5. Mixture 89; after three minutes 88·5; after seven 87.

Arterial blood 121. Water 63·5. Mixture 89·5; after three minutes 88·5, and after seven 87.

Now, allowing about one degree of the cooling effect to have been produced by the receiver indicated by the admixture of the hot and cold water, calculating the quantity of blood used from the knowledge of its volume and specific gravity, employing the formula given by Professor Robison, which consists in multiplying respectively the weight of the water and the blood by the change of temperature, and dividing the first product by the second, the quotient or specific caloric for venous blood appears to be as ·812, and for arterial as ·814, results very similar to those I have obtained with the blood of the sheep.

In the remaining experiments, blood with the fibrin present was employed, and with this exception they were perfectly similar to those already described.

The blood used to ascertain its time of cooling was obtained from a sheep; and one day the vein was opened, and on the next the artery. The capacity of the bottle employed exceeded that of the first by one ounce measure of water; but it was equally thin. The air of the room was of temperature 69.

Water cooled from 120 to 80 in	118 minutes
Venous blood in	112
Arterial blood in	113

And hence, as the latter was of specific gravity 1049, its capacity for heat seems to be as ·913; and as the former was of specific gravity 1051, its capacity appears to be ·903.

In the following experiment, equal volumes of fluid blood and of water were used; which was easily accomplished by means of a thin bottle with a large mouth, to which a cork was adapted, with a perforation more than sufficiently large to admit the bulb of a very delicate thermometer, and of course to allow, when the bottle was filled to the brim, the excess to flow out on the introduction of the cork, which was always similarly placed. To retard the process of cooling, the bottle was closely surrounded by a thick layer of what is commonly called cotton-wool. Its capacity was equal to five ounce measures of water, or 2400 grains. It was first filled with cold water, which, when its temperature had been ascertained, was thrown into the receiver

before used; it was next filled with hot water of temperature about 110, so that the heat of the glass might be nearly the same as that of the blood: and lastly, when the vein or artery had been opened, the bottle was immediately emptied and filled with blood, the temperature of which was ascertained by the thermometer in less than a quarter of a minute. The mixture now was instantly made, and by the same thermometer the highest temperature after mixture was discovered.

The four following trials were made on the blood of two lambs, both about five months old. The temperature of the air was 60.

Cold water 57·5. Venous blood 100. Mixture 80; after one minute 78·5.

Water 58. Arterial blood 103. Mixture 80; after one minute 79.

Water 58. Venous blood 101·5. Mixture 79; after one minute 78·25.

Water 58. Arterial blood 106·5. Mixture 81; after one minute 80.

The rate of cooling was not noticed after the first minute had elapsed, as the blood then generally began to coagulate. The specific gravity was not only ascertained in the two last trials; that of the venous blood was found to be 1050, and that of the arterial 1049; and hence allowing, as before, one degree of the cooling effect to be produced by the receiver, the capacity of venous blood for heat appears to be ·852, and that of arterial blood ·839.

It is evident that these trials admit of less accuracy than the preceding; and much more confidence, it appears to me, is due to the third series of experiments; so that, if required, I should be inclined to give the numbers thence deduced, as the greatest approximation to the truth.

2. *On the comparative Temperatures of venous and arterial Blood, and of different Parts of the animal Body.*—To endeavour to ascertain the comparative temperature of venous and arterial blood, I have a considerable number of experiments; some of which on lambs, sheep, and oxen, it will be sufficient for me in this place to describe. In each instance, a long incision was made through the integuments; the jugular vein was laid bare, and the exact seat of the carotid artery found. The vein was then opened, and a small delicate thermometer introduced, and thrust about an inch up the vessel beyond the wounded part; and as the bulb of the instrument was small, the flow of blood was not stopped. When the mercury was stationary, its height was marked. The carotid artery next was divided, and the thermometer was immersed in the current of blood, and left there till it ceased to rise.

The following are the results of five experiments made on lambs, all of which were about three months old. The thermometer in the shade stood at 65.

1. Venous

1.	Venous blood 102·5	Arterial blood	104
2.	—— 104	——	105
3.	—— 104	——	105
4.	—— 103.5	——	105
5.	—— 104	——	105

The following results were obtained from three experiments on sheep, whose exact age I could not ascertain. The thermometer in the shade was 60.

1.	Venous blood 103·5	Arterial blood	104·5
2.	—— 102·5	——	104
3.	—— 103	——	104

The experiments on oxen were only two in number. The temperature of the air was 64.

1.	Venous blood 100	Arterial blood	101·5
2.	—— 100	——	101

In both instances the oxen were knocked down before the vessels were opened; and as respiration had ceased in consequence of the injury of the brain and spinal cord, no difference of colour, of course, was preceptible between the blood from the jugular vein and that from the carotid artery.

These results, so different from what might have been expected from the observations of Messrs. Coleman and Cooper on the temperature of the two sides of the heart, led me to repeat their experiments. The experiments in which I place most confidence were made on lambs about four months old, and to these I shall confine myself at present. In each instance the animal was killed by the division of the great vessels of the neck; an opening was made immediately into the thorax, and a very delicate thermometer was introduced into the ventricles of the heart by means of a small incision. The operation occupied so short a space of time, that in three instances the right auricle had not ceased contracting.

1.	Venous blood . 104		Left 106
	Arterial ..... 105·5	3.	Rectum 105
	Rectum 104		Right ventricle ... 105·5
	Right ventricle 105·5		Left ..... 106·5
	Left 106	4.	Rectum ..... 105·
2.	Rectum 105		Right ventricle ... 106
	Right ventricle 105		Left ..... 107.

I cannot well explain the difference which exists between the results of the preceding experiments, and those of Messrs. Coleman and Cooper, which are directly opposite. Can the mode in which the animals they experimented on where put to death, be the cause of the want of agreement? In death by asphyxia, there is generally an accumulation of blood in the right ventricle; and in many instances I have observed, when the right ventricle has been distended with blood, little difference of temperature between the two sides of the heart.

To describe all the experiments that I have made to ascertain the temperature of the different parts of the animal body, would extend this paper to an unusual length, and there is the less occasion

casion for a long description, as the comparative results were very similar. It will be sufficient therefore here to notice the observations made on the human body, and on that of a lamb.

That the thermometer might be equally applied to all parts of the surface, its bulb, in form nearly cylindrical, was fixed to a small piece of cork, hollowed and lined with fine wool, and thus half its superficies was applied in each instance. The observations were made on the naked body at seven A. M. immediately after quitting bed. The temperature of the air of the room was 70. The following were the results obtained:

At the central part of the sole of the foot	90
Between the malleolus internus and the insertion of the tendo Achillis, where the artery is felt	93
Over the middle of the tibia	91·5
On the middle of the calf	93
Over the popliteal artery at the bend of the knee	95
Over the femoral artery in the middle of the thigh	94
Over the middle of the rectus muscle	91
Over the great vessels in the groin	96·5
About a quarter of an inch below the umbilicus	98
Over the sixth rib on the left side where the heart is felt pulsating	94
Over the same place in the right	93
Under the axilla, the whole surface of the bulb being applied	98

About an hour had now elapsed from the commencement of the experiment. The thermometer again applied to the sole of the foot rose no higher than 85, five degrees less than at first. A disagreeable sensation of cold was experienced, and particularly in those parts not supplied with large vessels, and out of the course of the great arteries. The body remained unpleasantly chilly till breakfast had been taken, and then a slight degree of pyrexia was perceived; the heat of surface being increased, the pulse quickened, and the mouth slightly parched. After breakfast, the thermometer was applied to both hypochondriac regions, and the left was found one degree higher than the right.

To ascertain the temperature of different parts of the surface beneath the integuments, the bulb of a thermometer was introduced through small incisions about half an inch between the skin and subjacent parts of a lamb just dead. The heat of the rectum was first ascertained, as a means of marking the rate of cooling, and the different parts were then tried in the following order:

Venous blood in the jugular vein	105·5
Arterial blood from the carotid artery	107
Rectum	105.5
Over the metatarsal bone	97
Over the tarsal bone	90
Over the knee joint	102

About

About the head of the thigh 103
At the groin 104

Nearly a quarter of an hour had been occupied in making these observations, and the temperature of the rectum was now found to be 105. The three great cavities were next opened in the order enumerated.

Near the lower part of the liver 106
The substance of the liver 106.5
The substance of the lung ..... 106·5
The left ventricle 107
The right ventricle 106
The central substance of the brain 104
Rectum ..... 104·5

Surprised at the temperature of the brain being lower than that of the rectum, I was led to repeat the experiment. It may be proper to notice a few of the results, as it is a curious circumstance which they confirm. The four experiments I shall mention were made on lambs. As soon as the animal was dead, the cranium was perforated, and a delicate thermometer introduced into the central part of the brain.

1. Brain 104 Rectum 104.75
2. Brain 104·75 Rectum 105·5
3. Brain 105·5 Rectum 106·5
4. Posterior part of the brain 105·5; anterior 103. Rectum 106·5.

The temperature of the air at the time was 68. Different parts of the brain were found to vary considerably in temperature; the anterior, as already noticed, being lower than the posterior, and the superficial than the deep-seated parts.

3. *Remarks and Conclusions.*

That there is no material difference between venous and arterial blood in respect to specific caloric, excepting what arises from difference of specific gravity; that the temperature of arterial blood is higher than that of venous; and the temperature of the left side of the heart, than that of the right; and lastly, that the temperature of parts diminishes as the distance of the parts from the heart increases—are the general results of the preceding experiments.

Admitting the accuracy of these experiments, and I think that they will be found correct when repeated, what are their consequences in a theoretical point of view?

They are evidently in direct opposition to Dr. Crawford's hypothesis; the essence of which is, that the capacity of arterial blood for heat is greater than that of venous, that there is no difference of temperature between the two ventricles of the heart, and in fact that the heat of all parts is nearly the same.

They are more agreeable to, and indeed they even support, the hypothesis of Dr. Black, that animal heat is produced in the lungs, and distributed over the whole system by means of the arterial blood.

Neither

Neither are they inconsistent with that hypothesis which considers the production of animal heat as dependant on the energy of the nervous system, and arising from all the vital actions constantly occurring.

Besides the results of the preceding experiments, many arguments may be advanced in opposition to Dr. Crawford's hypothesis.

As we never perceive a difference of capacity in bodies without a difference of form or composition; and as very slight differences of the former result only from great changes of the latter: it might be expected *a priori*, as no difference, excepting that of colour, has been detected between venous and arterial blood, that their specific caloric would be very similar. From analogy also, it might have been expected, that the capacity of arterial blood for heat would be much less than that of water, as water appears to exceed almost every other fluid, and as the capacity appears to diminish as the inflammability of compounds increases. But the strongest arguments against this hypothesis are to be derived from the recent experiments of Mr. Brodie, and those of MM. Delaroche and Berard.

Dr. Black's hypothesis appears to me far more satisfactory than Dr. Crawford's, and capable of explaining a much greater number of phænomena; but there are objections even to this hypothesis, which must be removed before it can with propriety be received.

The last hypothesis, which I mentioned, that which refers animal heat to vital action, has many facts in its support, and especially the results of Mr. Brodie's curious and interesting experiments; and the results of my inquiry, as I have already observed, are not incompatible with it. It may be said, that the viscera of the thorax and abdomen are of highest temperature, because these parts are, as it were, the elaboratories of life; and that the heat of the arterial blood, and of the parts best supplied with this fluid, is greatest, because they lie deepest and abound most in the principle of life or vital action. This explanation was suggested to me by my brother Sir H. Davy. There are some facts which I have observed agreeable to it, but not more so than to the hypothesis of Dr. Black. I have found the stomach of the ox, the pyloric compartment, of a higher temperature than the left ventricle itself: thus, when the latter immediately after death was 103, the former full of food was 104·5. I have also found the temperature of young animals, in whom all the vital actions are most energetic, higher than that of animals arrived at maturity. I may mention here, in illustration of this statement, a few observations made on infants, as I am not acquainted with any yet published. In one instance I found the heat under the axilla of a child just born 98·5; after twelve hours 99, and after three days, the same; during the whole of which time it appeared in perfect health. On five other children of the same age, similar observations were made. In two instances

of

of weak infants, the temperature, one hour after birth, was found not to exceed 96, which is two degrees below the standard heat of man in a state of health; but their respiration was still languid, and the next day the heat of the axilla had risen in one to 98·5, and in the other to 99.

To conclude: As, in each hypothesis examined, difficulties are found to exist from facts or the results of experiments of an unbending nature, we must at present either suspend theory altogether and search for *experimenta crucis*, or adopt that hypothesis which is conformable to the greater number of facts. The first measure is certainly most philosophical; but to the latter we are naturally most inclined; and if I were questioned, which view is preferable, I should make no hesitation in selecting Dr. Black's, which to me appears both most simple and most satisfactory.—*Phil. Trans.*

Some Experiments on the Combustion of the Diamond and other carbonaceous Substances. *By* Sir Humphry Davy, LL.D., F.R.S. V.P.R.I.

During a stay that I made at Florence in the end of March and beginning of April, I made several experiments on the combustion of the Diamond, and of plumbago, by means of the great lens in the Cabinet of Natural History; the same instrument as that employed in the first trials on the action of the solar heat on the diamond, instituted by Cosmo III. Grand Duke of Tuscany; and I have since made a series of researches on the combustion of different kinds of charcoal at Rome, in the laboratory of the Academia Lyncei. In the first series I was honoured by the assistance of the Count Bardi, the Director, and Signior Gazzari, the Professor of Chemistry at the Florentine Museum: and in the last by that of Sig. Morrichini and Barlocci, Professors of the College Sapienza at Rome.

In the very first trials on the combustion of the diamond, I ascertained a circumstance that I believe has not been noticed before; namely, that the diamond, when strongly ignited by the lens in a thin capsule of platinum perforated with many orifices, so as to admit a free circulation of air, continues to burn in oxygen gas after being withdrawn from the focus. The light it affords is steady, and of so brilliant a red, as to be visible in the brightest sunshine; and the heat produced is so great, that in one experiment, in which three fragments of diamonds weighing 1·84 grain only were burnt, a fine wire of platinum used for attaching them to the tray was fused, and that some time after the diamonds were removed out of the focus.

The knowledge of this circumstance enabled me to adopt a very simple apparatus and mode of operation in my researches, and to complete, in a few minutes, experiments which have been supposed to require the presence of a bright sunshine for many hours.

My apparatus consisted of clear glass globes of the capacity of from fourteen to forty cubical inches, having single apertures

to which stop-cocks were attached: a small hollow cylinder of platinum, which I use in experiments with the blow-pipe, was attached to one end of the stop-cock, and was mounted with a little perforated capsule of platinum for containing the diamond. When the experiment was to be made, the globe containing the capsule and the substance to be burned was exhausted by an excellent air-pump, and pure oxygen gas, made from hyperoxymuriate of potassa, admitted. The globe before and after the experiment was brought to the same temperature as the water over which the oxygen gas had remained. And, as during the short time required for the combustion there was no sensible change either in the thermometer or barometer, no corrections for pressure or temperature were rendered necessary; the change of volume in the gas after the combustion, was estimated by means of a fine tube connected with a stop-cock, adapted by a proper screw to the stop-cock of the globe, and the absorption was judged of by the quantity of mercury that entered the tube, which afforded a measure so exact that no alteration, however minute, could be overlooked. As the elastic force of the vapour of water is the same at the same temperature, it was evident, that if any water formed in these experiments, it would be deposited as dew or mist in the globe; and I am convinced by direct trials, that a quantity of moisture not capable of being weighed by a balance sensible to the $\frac{1}{100}$ of a grain, is rendered evident by deposition on a polished glass surface.*

The diamonds were always heated to redness before they were introduced into the capsule.

During the combustion of the diamond, the glass globe was kept cool by the application of water to that part of it immediately above the capsule, and where the heat was the greatest.

In the first experiment, three diamonds, weighing together 1·63 grain, were entirely consumed, in a quantity of oxygen gas, more than three times as much as was necessary to convert them into carbonic acid. In this case, after the combustion had once commenced, it continued without a fresh application of the lens till there remained only a very thin piece of the largest diamond in contact with the capsule, and this by being brought into the focus rapidly disappeared. On restoring the globe to its original temperature, there was a very evident deposition of moisture; but on arranging the apparatus, so as to ascertain the change of volume of the gas, there entered only twenty-one grains of mercury. In this experiment, the cylinder of platinum

* A piece of paper weighing a grain was introduced into a tube of about the capacity of four cubical inches, the exterior of which was gently heated by a candle; immediately a slight dew was perceptible in the interior of the upper part of the tube; the paper taken out and weighed immediately in the balance above referred to, had not suffered any appreciable diminution.

had

had been fastened into the stop-cock by means of a small perforated cork: it seemed probable, when the small diminution of gas was considered, that the appearance of moisture might be owing to the production of vapour from this cork during the combustion, and the second experiment demonstrated that this was the case.

In this second experiment 1·84 grain of small diamonds were employed, and a glass globe of the capacity of 14·9 cubical inches. Soon after the capsule was placed in the focus in bright sunshine, the diamonds burnt with great brilliancy, and continued to burn till they had considerably diminished in bulk; but their splendour of combustion gradually became less, and before they had apparently lost half of their volume the process ceased. By placing them a second time in the focus, after agitating the globe so as to change their places, the combustion was again produced; but the light was much less vivid than before, and the combustion continued for a much shorter time. They were exposed to the concentrated rays a third and a fourth time; but after the fourth time they seemed incapable of burning, and though kept for some minutes in the focus, appeared to undergo no further diminution: two fragments remained, which, as it was afterwards found, weighed ·52 of a grain; the barometer during the experiment was at 29·9 inches, the thermometer at 56° Fahrenheit. When the original temperature of the globe was restored, there was not the slightest appearance of vapour or humidity; the interior was as clear as before the experiment, and there was no solid matter of any kind separated in the tray. The fragments of diamond which remained were not black, but had lost their lustre like glass that has been acted on by fluoric acid, nor at any period of the process was any carbonaceous appearance perceived upon them. When the communication was made by the stop-cock between the interior of the globe and a surface of mercury, a minute quantity entered equal to 1·5 grain only.

A portion of the gas in the globe was transferred into a tube in the mercurial apparatus, and the oxygen it contained absorbed by the combustion of phosphorus; 3·5 parts of gas heated in this way left a residuum of 2·5 parts. A portion of the gas was agitated with lime-water, when seven parts out of ten were absorbed. I exposed the gas which remained after the combustion of phosphorus to several tests; it had not only the obvious characters of carbonic acid, but exhibited exactly the same chemical phænomena. Potassium strongly heated in it in a small glass tube over mercury, burnt with a dull red light, and formed an alkaline product of the same intense black colour as that produced by its combustion in the carbonic acid procured by the dissolution of marble: distilled water absorbed rather less than its own volume of the gas, and became subacid, sparkled by agitation, gained the taste and smell of a solution of carbonic acid in water, precipitated in the same manner lime-

water, and when in excess redissolved the precipitate. To ascertain if this precipitate was exactly the same in composition as pure carbonate of lime, I made a sufficient quantity of it by pouring lime-water into the recipient containing the results of the first experiment; and after collecting and drying it at the temperature of 212° Fahrenheit, I introduced a quantity of it contained in some foil of platinum through mercury into a glass tube filled with mercury, and I heated in the same manner an equal quantity of finely powdered Carrara marble, and admitted to them equal quantities of solution of muriatic acid. In this trial, there was rather more elastic fluid disengaged from the Carrara marble than from the carbonate of lime from the diamond; but on examining the foil of platinum after the experiment, I found that a little of the carbonate had not been acted upon: I tried two similar experiments, substituting bibulous paper instead of the metallic foils for infolding the carbonates; the results were such as to show that both substances afforded the same quantities of elastic fluid.

I heated some of the carbonate from the diamond in a tube which contained potassium, and passed the potassium through it in vapour: there was ignition, and a substance of a dense black colour was formed; this substance was acted on by dilute muriatic acid, when it left a fine black powder which burnt like lamp black, and when thrown into fused nitre scintillated and disappeared in the same manner as powdered charcoal.

The gas that remained in the second experiment, after the absorption of the carbonic acid gas, vividly supported combustion, and diminished with nitrous gas; but as the degree of purity of the oxygen gas with which the globe was filled had not been determined before the experiment, it was impossible to ascertain with precision, that no elastic matter had been emitted during the process. To determine this point, I made a third experiment. A thin diamond weighing ·93 of a grain was introduced into the platinum capsule, which was placed in a globe filled with water and inverted in water; some oxygen gas, the last portion from the decomposition of hyper-oxymuriate of potassa, was thrown into the globe, so as to displace the water below the level of the capsule. The focus of the great lens was thrown upon the capsule, which with the diamond was instantly rendered dry by it, and the diamond soon entered into combustion and burnt as usual. After the process was finished, the carbonic acid was absorbed by lime-water, and the remaining gas, which equalled about one-third of the quantity of oxygen originally used, was compared analytically in several experiments with a portion of the same oxygen as that introduced into the globe, two measures of nitrous gas being added to a measure of each of the gases; the diminution was less by from $\frac{1}{100}$ to $\frac{1}{100}$ parts in the cases in which the gas that had been exposed to the action of the diamond was used; but this minute difference is what might have been expected, and which indeed could not fail to exist, when it is considered that, during the absorption

sorption of carbonic acid gas by water and lime water, a small quantity of common air is always expelled from the water.

In this last experiment a small fragment of diamond remained unconsumed, which was similar in appearance to that mentioned in the second experiment, and its colour, which was originally yellow, was rendered rather darker. In no one of the three experiments was there any distinct appearance of carbonization, when the process was stopped in consequence of the impurity of the gas; though the diamonds were of various colours and different lustres.

A piece of plumbago from Borrowdale in Cumberland, weighing two grains, was exposed in the focus in the same manner as the diamond in the first and second experiments, having been previously heated red; the quantity of oxygen gas employed was 8·5 cubical inches: more than half the plumbago remained unconsumed, and during the combustion some brown ashes were produced. The phænomena in this experiment were very different from those observed in the experiments on the diamond, the gas became clouded during the process, and there was a considerable deposition of dew on the interior of the globe. When the original temperature of the globe was restored, and the stop-cock opened, 96·6 grains of mercury entered, and drops of moisture even were observed condensed on the sides of the vessel.

In the second series of experiments, charcoal formed by the action of sulphuric acid on oil of turpentine, and some produced during the formation of sulphuric ether, from which nitric acid had been distilled, and which afterwards had been strongly ignited, and charcoal of oak which had undergone the same process, were used.

Three grains of the charcoal from turpentine were employed, 2·5 of that from alcohol, and five grains of the charcoal of the oak: in all these instances of combustion the gas became clouded during the combustion, and, when the original temperature of the globe was restored, moisture was found condensed in the interior; much the largest quantity in the experiment on the charcoal of oak, and the least in that on the charcoal procured from oil of turpentine. The charcoal from oak left a residuum of white ashes, which was principally carbonate of lime; that from oil of turpentine produced no residuum; that from alcohol, which was formed in a common process of the manufacture of ether, left a minute quantity of ashes, probably owing to the impurity of the sulphuric acid employed.

The quantity of mercury which entered the apparatus indicating the change of volume of the gas, was in the experiment on the charcoal of oil of turpentine ..... 107·5 grains
In that on the charcoal of alcohol ..... 194·5
In that on the charcoal of oak ..... 513·3

From the results of these different experiments, it appears evident, that the diamond affords no other substance by its combustion than pure carbonic acid gas; and that the process is merely a solution

solution of diamond in oxygen, without any change in the volume of the gas; for the slight absorption in the second experiment is scarcely more than a compensation for the volume occupied by the diamonds consumed.

It is likewise evident that in the combustion of the different kinds of charcoal, water is produced; and from the diminution of the volume of the gas, there is every reason to believe, that the water is formed by the combustion of hydrogen existing in the charcoal; and experiments which I have referred to, or detailed in my third Bakerian Lecture, prove the presence of hydrogen in common charcoal; and as the charcoal from the oil of turpentine left no residuum, no other cause but the presence of hydrogen can be assigned for the diminution occasioned in the volume of the gas during its combustion.

M. Guyton de Morveau* has noticed the production of water during the combustion of plumbago from Keswick; and from these experiments it is most probable that it is formed in the process of combustion, for it is unlikely that water should remain in union with plumbago at a red heat; and in the various experiments that I have made on the ignition of plumbago by Voltaic electricity, I have never perceived the separation of any moisture, or the production of any gas; so that it seems most likely that it contains intimately combined hydrogen. It cannot be supposed that water exists in it in union with oxide of iron, for in this case there would be no obvious cause for the diminution of the volume of the gas; and all analogy is in favour of the conclusion that the iron is in a metallic state.

The general tenor of the results of these experiments is opposed to the opinion, that common carbonaceous substances differ from the diamond by containing oxygen; for in this case they ought to increase and not diminish the volume of oxygen: nor, on the other hand, is it favourable to the supposition that the diamond contains oxygen, for the difference in the quantity of carbonic acid produced in the different experiments, is no more than may be reasonably ascribed to the generation of water, in the combustion of the common carbonaceous substances; and the results of the experiment, to which I have referred in the beginning of this paper on the action of potassium on the diamond, may be easily accounted for from other circumstances.†

That charcoal is more inflammable than the diamond, may be explained from the looseness of its texture, and from the hydro-

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* Annales de Chimie, tome lxxxiv. p. 241.

† See Bakerian Lecture for 1808. Potassium decomposes the silica in glass by being heated in contact with it; and in the case in which equal quantities of potassium were long heated in glass tubes, the one in contact with diamonds, the other alone, that in contact with the diamonds must have acted upon a much greater surface of glass.

gen it contains; but the diamond appears to burn in oxygen with as much facility as plumbago, so that at least one distinction supposed to exist between the diamond and common carbonaceous substances is done away by these researches.

A fact which I formerly noticed, the blackening of diamond by the long continued action of heated potassium, induced me to suspect in the beginning of these inquiries, that common charcoal might owe its colour, opacity, and conducting power, to the circumstance of its containing minute portions of the metals of the alkalies, or earths, and plumbago to the iron it contains; but when I found that charcoal made from oil of turpentine, which left no residuum in burning, and charcoal precipitated from carburetted hydrogen gas by chlorine, had the same properties, it was necessary to renounce this opinion.

The only chemical difference perceptible between diamond and the purest charcoal, is, that the last contains a minute portion of hydrogen; but can a quantity of an element, less in some cases than $\frac{1}{10000}$ part of the weight of the substance, occasion so great a difference in physical and chemical characters? this is possible, yet it is contrary to analogy; and I am more inclined to adopt the opinion of Mr. Tennant, that the difference depends upon crystallization. Transparent solid bodies are in general non-conductors of electricity, and it is probable that the same corpuscular arrangements which give to matter the power of transmitting and polarizing light, are likewise connected with its relations to electricity; and water, the hydrates of the alkalies, and a number of other bodies which are conductors of electricity when fluid, become non-conductors in their crystallized form.

The power possessed by certain carbonaceous substances of absorbing gases, and separating colouring matters from fluids, is probably mechanical and dependent upon their porous nature; for it belongs in the highest degree to vegetable and animal charcoal, and it does not exist in plumbago, coke, or anthracolite.

The same conclusions respecting the composition of carbonic acid may be drawn from these experiments, as from those of Messrs. Allen and Pepys, and Theodore de Saussure. If the calculations be founded upon the difference of the weights of oxygen and carbonic acid gases, which appears the most exact method, carbonic acid gas will contain, according to the estimate of the mean specific of the gravities of the two gases given by M. Theodore de Saussure,* thirty parts of oxygen, or two definite proportions, to 11·3 parts of carbon, or one definite proportion.

Supposing the diminution of the oxygen produced in the experiments on the common carbonaceous substances entirely occasioned by the formation of water, it is easy to calculate the proportions of hydrogen in them; but in the case of plumbago there is probably

* Annales de Chimie, tome lxxi. pag. 261. This estimation is the same as that I have given. Elements of Chem. Phil. pag. 305.

a diminution

a diminution of oxygen, from the oxidation of the iron; and it is not certain that the ashes afforded by the charcoal from vegetable substances exist in it in the state of earths and alkalies: and as the quantity of hydrogen varies according to the degree of heat to which charcoal has been exposed, it is almost useless to attempt to assign its proportion in any particular case, especially when the largest portion is so extremely minute.

The nature of the chemical difference between the diamond and other carbonaceous substances may be demonstrated by another process, namely, igniting them in chlorine; when common well burnt charcoal, or plumbago from Cumberland, is intensely ignited in chlorine, white fumes are immediately perceived in consequence of the production of muriatic acid gas by the hydrogen, which acid precipitates the aqueous vapour in the chlorine; but the diamond occasions no such effect. A small diamond, weighing ·45 of a grain, was kept in a state of intense ignition by the great lens of the Florentine Museum for more than half an hour; but the gas suffered no change, and the diamond had undergone no diminution of weight, and was not altered in appearance.

Charcoal, after being intensely ignited in chlorine, is not altered in its conducting power or colour; and this circumstance is in favour of the opinion, that the minute quantity of hydrogen is not the cause of the great difference between the physical properties of the diamond and charcoal.—*Phil. Trans.* 1814. *Part II.*

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

A Practical Treatise on Porrigo or Scalled Head, and on Impetigo, the humid or running Tetter; with coloured Engravings, illustrative of the Diseases. By the late ROBERT WILLAN, M.D. F.R.S. and F.A.S. Edited by ASHBY SMITH, Member of the Royal College of Surgeons in London. 4to. Cox.

A PREFACE by the editor informs us, that the last period of Dr. Willan's life at Madeira was devoted to the task of revising his manuscripts. In this he was assisted by the editor, and, at the close of the doctor's earthly career, the papers were entrusted to the same hands.

It is afterwards added, that, in consequence of his near connection with the family, the editor's assistance was requested

quested by Dr. W.'s representative in presenting the papers to the world.

"The foundation of Dr. Willan's whole fabric, consisting of a large portion of original notes, and all his case-books, are now in possession of the editor; these he has carefully consulted and compared; the terms of intimacy that subsisted between himself and the author, furnished him with ample means of ascertaining the extent of Dr. Willan's indefatigable zeal in all matters of medical research; and who, at length, contemplating the uncertainty of his recovery, unlocked to the editor, in moments of friendly intercourse, the vast stores of information which he had treasured up on various departments of medical science, but more especially on cutaneous disorders. It is from these opportunities of forming an opinion, that he has ventured to speak in favour of the present work.—The public, however, will form its own judgment.

"The greater part of the following pages is occupied with the description and treatment of Porrigo. The contagious property, and daily increasing extension, of this loathsome malady, render the investigation of it an object of peculiar interest; while the difficulty of removing it has long occasioned it to be classed among the *opprobria medicorum*. Indeed, from the time of the earliest medical writers, this branch of the healing art appears to have been involved in much obscurity; nor is the period in the history of medicine very remote, when the practice of it was, in a great degree, suffered to rest in the hands of empirics.

"How far this publication may supply the deficiency which has so long existed in the medical world, remains for the public to determine; but its utility, in arranging the varieties of scalled head, discriminating and illustrating their diagnostic symptoms, and recommending a mode of treatment, the result of thirty years' extensive and successful practice, will, it is conceived, be generally acknowledged.

"The latter part of this treatise contains a description of the appearances and treatment of Impetigo, the humid or running tetter; which, although the disorder possesses no feature in common with Porrigo, except its pustular origin, will be considered valuable, as the production of an author whose former labours have thrown so much light upon the subject of cutaneous diseases."

Thus, then, the case book was committed to Mr. A. Smith, and explained by frequent conversations. Such are the claims made by this gentleman to the mantle of Dr. Willan. Our readers may form their own judgment. For ourselves, we shall only remark, that the present work, by the closeness of the description, the accuracy of discrimination, the extended scale and minute delineation and chastity of colouring every where reminds us of Willan. We must also admit, that it is not without his failings; but these we can pardon where we see so much to commend.

The first and most important article is Porrigo, or Scalled Head. This term appears to us the most unobjectionable of any in use. It seems to have been the vernacular expression of the Romans, probably, at first, the same as prurigo or itching: it, like many other synonyms, acquired its appropriate meaning from necessity, as language acquired form and stability, and as health, in common with other enjoyments, became an object of closer and more accurate attention. The definition or character of the disease is not less unexceptionable.

"The porrigo is a contagious disease, without fever, usually exhibiting an eruption of the pustules termed Achores and Favi.

"The Achor is a small acuminated pustule, which contains a straw-coloured fluid, having the appearance, and nearly the consistence of strained honey. It appears most frequently about the head, and is succeeded by a dull white or yellowish scab. The Favus or Cerion is larger and less elevated than the Achor; being succeeded by a yellow, semi transparent, and sometimes cellular scab, like a honeycomb."

Here we check ourselves from proceeding, having, in all our remarks on this learned author, regretted his frequent introduction of Galen, Actuarius, Rhazes, Trallian, Avenzoar, &c. &c. Yet even here we feel constrained to applaud the conclusion of this paragraph of the ancients:—"The word tinea," says our author, "has been often employed generally to express the different appearances of these pustular eruptions; however, as it belongs to the Arabic language, I declined the use of it in favour of the Latin term porrigo, which is familiar and appropriate."

Tinea is, perhaps, more common than porrigo in the present day. It is objectionable, not so much on account of its Arabic origin, as from the confusion it has made with the Latin term *tinea*, the tape-worm, or worms in general, so that at last we have got to the absurd distinction of tinea capitis, by the use of words from two remote countries, and having no meaning in common but as they both relate to disease. In a note to this passage, Dr. W. conceives the term porrigo derived from the odour of *porrum*, a leek. Vossius, however, imputes it to the involutions of a leek. Either of these or both may be right, or our former suggestion. But, as the decision cannot assist us in the designation of the disease, we have only introduced it to show to how little purpose hard names of authors and diseases are multiplied. It were well if this were the only objection. With the modest, they induce an apprehension of their own incapacity; with the confident, are the source of error; with the diligent, they consume that time which should be better employed; and they are little attended to by scholars or accurate practitioners.

tioners. In the present instance, we need no other proof of their inutility than the author's remark transcribed above, that, from the time of the earliest medical writers, this branch of the medical art appears to have been involved in much obscurity.

Under the genus porrigo, the author considers the following varieties: P. larvalis, P. furfurosa, P. lupinosa, P. scutellata, P. decalvans, and P. favosa.

P. larvalis is so called from the frequency with which it encrusts the whole face like a mask; it is the *crusta lactea* of the obstetric writers, a term which Dr. W. objects to, inasmuch as it is not always curable by a change of milk, nor in other respects necessarily connected with lactation, the following is the more general form of the disease.

"P. larvalis generally appears first on the forehead, in minute pustules, with a whitish point, set close together, and producing a redness and inequality of the surface, attended with considerable itching. The pustules break in a few days, and discharge a clear viscid humour, which gradually concretes into thin yellowish scabs. From beneath these a discharge of fluid takes place, from time to time, and forms additional layers of scabs, of a brown or blackish colour, till the forehead is completely incrusted. The scabs are in some places thick and rounded, though not very compact; in others, thin or laminated, and loose at the edges. They do not separate at regular periods; if any of them be detached, the surface is presently covered by a new incrustation. The scab is alternately dry and humid. Sometimes, from a fresh eruption of the pustules, or from other circumstances, the discharge becomes on a sudden so profuse that all the surface is laid bare, and remains for several days in a state of ulceration, emitting a thin, viscid, and acrimonious fluid from innumerable pores. Very young infants are most liable to be thus affected, and they suffer extremely from pain, itching, and irritation, when the complaint is extensive. On the cessation of the discharge, brown or blackish scabs gradually form again, and cover the ulcerated part. When the disease is about to terminate, the scab becomes dry, and sometimes whitish, and at length falls off, leaving a red shining cuticle, indented with deep lines, and very brittle,—hence it cracks and exfoliates, and is renewed, perhaps, three or four times before it acquires the usual colour and texture."

The complaint, however, appears in various parts of the head or face, and often spreads over the whole. The discharge has a disagreeable smell and is acrimonious. A prognostic of Dr. Strack's is mentioned of no inconsiderable importance, for whatever relates to prognosis is important, as the means by which the reputation of the practitioner is with great propriety decided. Dr. Strack says, that, when the complaint is disposed to terminate spontaneously, the

urine acquires a smell similar to the urine of a cat. We wish we could learn whether Dr. Willan's observation confirms this remark.

On the treatment of the disease nothing particularly new occurs, excepting that the author seems less disposed to leave the case to nature than many of the older practitioners. His remedies are, ung. zinci, cerussæ, and hydrargyri nitrati, with the use of hydrargyri submurias, internally: Some other practical remarks follow in cases at all differing from the common, and last of all we have Professor Strack's specific, a decoction of viola tricolor in milk. The simplicity, and, if we may believe the professor, the certainty, of the remedy, and its speedy effect, make us again regret that our author gives us no hint concerning his own practice or even opinion on the subject. The editor, however, with much propriety informs us, that, as far as his knowledge extends, the doctor had not tried the remedy.

P. furfurosa is not to be considered a mere branny surface as the word would imply. "The eruption is from time to time renewed, the succeeding scabby incrustation is augmented, and often rendered soft by the exuding viscous fluid." The description is continued a few lines further, to distinguish it from the scaly leprosy, and some few other complaints which are dry and do not materially affect the head.

Dr. Willan found coculus indicus, as a local application, either sprinkling the powder or making it into a poultice, the most certain remedy. This was first recommended by Dr. John Hume in an inaugural dissertation, and afterwards adopted by Dr. James Hamilton, who communicated it as a remedy for Tinea Capitis to Dr. Willan.

Porrigo lupinosa consists of small clusters of achores. "These are formed in different parts, which presently break and form dry yellowish or white scabs. These within a fortnight gradually increase to the size of a sixpence, when they have a raised border, but are depressed towards the centre, and furrowed. There is often an intervening white incrustation, which nearly covers the scalp, and when dried, separates and falls off in small white laminæ. If the complaint be neglected, the occipital and submaxillary glands enlarge, and often suppurate, and the accumulating scab forms, with the hair, into a hard, elevated mass, sometimes resembling a bird's nest, or sometimes a pressed honeycomb.* A similar thick incrustation is formed in the Porrigo larvalis, affecting infants among the poor, when little attention is paid to neatness and cleanliness."

* "This appearance is presented in M. Albert's fine prints, and in the Medical and Physical Journal, (London)."

Porrigo scutellata is only another word for the ring-worm of the head. The most useful part of this division relates to the probable origin and the infectious property of the disease, on both which we have some very judicious observations: for the treatment, we have a list of most of the well known remedies, with a remark, that it is sometimes necessary to try one, and sometimes another. As far as our own practice goes, however, we would say that the ung. hydrargyri albi has not failed in a single instance. By this, we would not be thought to question the difficulties which must sometimes have occurred to Dr. Willan in individual cases of his extensive practice.

The Porrigo decalvans, as may be supposed, is so named from its often destroying the hair. In these cases the scalp is smooth, shining in certain patches affected by the disease. At this passage of the work the author observes, that all the varieties may arise from the same contagion in the same manner as the various forms of scarlatina. If so, one should very much suspect, that the same remedy would be successful; and, perhaps, the only reason why it is not in all, may be certain stages of inveteracy, or degrees of inflammation, or habits of life. The first would only require a longer continuance of the remedy; the others internal remedies suited to the state of health or to the constitution. After this last observation, the reader will easily perceive that we have said enough for the purpose of a review. The learned remarks and quotations which follow, and the judicious application of certain remedies under particular circumstances, are well calculated for a book of reference, which Dr. Willan's work will for ever remain.

The next article in this book is on the Impetigo or running Tetter.

"By the term Impetigo," says our author, "I mean to express an eruption of the pustules usually denominated Psydracia. The Psydracium is a minute pustule, and irregularly circumscribed, producing but a slight elevation of the cuticle, and terminating in a laminated scab. Many of these pustules usually appear together, and become confluent. When mature, they contain pus; and, after breaking, discharge a thin watery humour."

Such a description is very concise, and seems intelligible; but the volley of quotation which follows, however it may impress us with a sense of the author's diligence and learning, certainly does not add to the perspicuity of the diagnosis. As, however, we have hitherto given no specimen of the author's learned citations, we shall, perhaps, not do justice to the work, if we omit the present opportunity.

"The definition of Psydracion by Greek authors, is conformable

able to that given above. Alexander Trallianus and Paulus Ægineta represent Psydracia as small elevations of the cuticle, resembling Phlyctides, and chiefly confined to the head;* but, according to Galen, they appear on every part of the surface of the body, in a red papuliform eruption. Julius Pollux† has given the following definition: 'Psydracia are inflamed spontaneous eruptions (ἐξανθημάτα) ulcerating superficially.'

"These pustules, when the eruption is extensive, do not appear uniform. Some of them are small and elevated; others larger, without a proportionate elevation of the cuticle; and a few of them resemble vesicles, not being filled with pus, but with a semi-transparent fluid.

"Celsus,‡ under the generic title Impetigo, has comprised several diseases which are not strictly connected with each other. The second species described by him, coincides with the Lepra or Psoriasis of the Greeks. The third and fourth are referable either to the Psoriasis inveterata, or to the scaly state of the skin in Elephantiasis. The first species appears to have been pustular, and may be ranked with the ulcerated Psora¶ of the Greeks. I take the liberty of employing the term Impetigo to express this species only, having, in my arrangement, separated pustular from scaly diseases of the skin, and having elsewhere described, under other denominations, the scaly complaints mentioned by Celsus. His description of the pustular impetigo is very short: 'Minimè mala est quæ similitudine Scabiem repræsentat, nam et rubet, et durior est, et exulcerata, et rodit. Videnturque esse in eâ quasi bullulæ quædam, ex quibus, interposito tempore, quasi squamulæ solvuntur.' He distinguishes this species from another, which is more ulcerated, and exhibits larger pustules resembling Vari, probably referring to Ecthyma, a disease characterised by large inflamed pustules, and not without affinity to the impetigo. His

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"* Ψυδρακιαι εισι μικραι υπεροχαι, φλυκτισιν ομοιαι, υπερκειμεναι της επιφανειας.

Alex. Trall. lib. i. cap. 5. Paul. Æg. lib. iii. cap. 8.

"Ψυδρακιον εστι κοινως λεγομενον ὁ περι παν το σωμα, και περι το λευκον του οφθαλμου γινεται, οιον εξανθημα εξ ακρων ερευθες.

Galen Introductio, cap. 15.

"† Ψυδρακιαι, πυρωδη εξανθηματα αυλομαλα, ελκωδη εν επιφανεια.

Jul. Poll. Onomasticon, cap. 23.

"‡ De Medicin. lib. v. cap. 28. § 17.

"¶ On Cutaneous Diseases, p. 148. The Arabian physicians, in like manner, constitute a dry and a moist Alkouba or Impetigo. 'There is a sanguineous Kouba, which discharges a dewy moisture upon being rubbed.' Avicenna, vol. ii. p. 249. Compare Serapion, Breviar. Tr. v. cap. 2. Alsaharav. Tr. xxxi. cap. 7. Forest. Obs. Ch. lib. ii. p. 168. Hoffman, tom. iv. p. 438. and Supplem. i. p. 143."

additional

additional observation, that the latter occurs periodically, or with more regular intervals than the former, is also strictly true."

The divisions of this genus are, Impetigo sparsa, I. figurata, I. erysipelatodes, I. scabida, and I. rodens. A description of the first will enable us to give the reader a sufficient knowledge of the rest, as far as can be conveyed without consulting the work. In this instance, too, the plates are a very great assistance.

"In the Impetigo sparsa, the pustules are at a distance from each other; and the eruption extends, without any certain order, along the backs of the hands, the arms, neck, shoulders, thighs, or legs. After a few days, the pustules break, and discharge a thin humour, which gradually concretes into yellowish laminated scabs. The cuticle, as far as the eruption extends, becomes reddish, rough, or scaly; and a slight discharge from rhagades or chops in various places, as well as from beneath the thin scabs, continues through the complaint: the duration of which, in the upper extremities, is seldom more than two or three weeks. When the lower extremities are affected with this eruption, it continues a long time. Small yellow pustules first appear on the instep, and then on the ancle and leg, with a violent itching. They are most numerous on the foot and ancle, and when they are broken, a considerable quantity of humour issues from small pores, around which the cuticle is rough, reddish, shining, and a little elevated. The parts affected are for some weeks covered with thin scabs, but not sufficiently so to prevent the watery discharge. When the surface appears to be healed, and the scabs are about to seperate, a fresh eruption of pustules often takes place, and the discharge recommences with great heat and irritation. After several returns of the eruption, ulcers are sometimes formed on the fore part or sides of the ancle. The ulcerations discharge a clear ichor; they exhibit a considerable but unequal cavity, and irregular edges surrounded by the pustules. In sedentary persons, who have passed the middle period of life, the edges of the ulcers are blackish, or of a purple hue, and the limbs become œdematous. The small pustules diffused over the surface are of nearly the same colour, and sometimes the intervening skin appears livid, or speckled with livid and red.

"The Impetigo sparsa is most troublesome when the yellow Psydracia are intermixed with small irregular vesicles, as frequently happens on the upper extremities. The complaint commences about the knuckles, and spreads along the thumb and fingers to the nails; likewise along the back of the hand, and round the wrists, to the fore-arm. Both hands are usually thus affected about the same time, and the eruption extends, in some cases, to the bend of the elbows, the upper arm, the neck, and the cheek. It is always succeeded by a little watery discharge, and by the formation of laminated scabs: when these fall off, the cuticle beneath remains for a long time scaly, and chopped, and in this state of it, fresh

fresh pustules arise, with heat, soreness, and violent tingling. Thus, by repeated suppuration, and scabbing, the texture of the skin becomes, in many places, rough, harsh, and inflexible."

Impetigo figurata differs from the *sparsa* principally in the form of the eruption, the psydracia being so clustered as to form large scabs. In this respect, it resembles the ring-worm described by some tropical writers.

I. erysipelatodes partakes of the tumour and disposition to cuticular elevations which characterizes erysipelas: the elevations containing an ichorous instead of serous fluid.

The scabida and rodens are the most serious forms of the disease. The first includes that incrustation resembling the bark of a tree, which sometimes envelopes the legs of old subjects, and, without seeming to shorten life, renders it extremely irksome. The second is not confined to the surface, but affects the cellular membrane. Both these are described with much accuracy; and, for the last, the author seems fearful of offering any remedy, remarking that he never saw it terminate but with life. In most cases he has found it supervene a general ill state of health. It is probable, that the doctor's celebrity may have introduced him to many of these cases in their worst form, or in the inveterate stage; in which case, it is certain, but little can be done. On this account, we could wish the caution against such a progressive increase had been most pointedly marked. In the early stage only, can any thing be attempted for these complaints: in the more advanced, the I. *scabida* is often not less incurable than the *rodens*, especially in old subjects, whom it chiefly affects.

For the three first forms, Dr. W. recommends frequent washing the parts, occasional purges, and, in some cases, the Peruvian bark with the muriatic acid; as local applications, when necessary, the zinc and saturnine ointments. In the tropical ring-worm, however, the treatment is much more severe: lime-juice, gun-powder, and ketchup, are frequent remedies for old local complaints in the West Indies, the object of which can only be by a strong stimulus to induce a new action on the parts. I. erysipelatodes requires the mixed treatment which must be governed by the degree of inflammation; for the *scabida*, the mode of treatment here recommended may be very judicious if this form of the disease attacks young or middle-aged subjects. But, as we before remarked, inveterate cases in old subjects have, to us, all proved refractory. Both of them may be much mitigated in their early stage, if the health is tolerable or can be restored. The progress of the disease should be carefully watched, and treated with antiphlogistic remedies as often as the symptoms of the constitution seem to threaten a first paroxysm,

roxysm. The local treatment must be varied according to the stage of the disease, but it is never desirable to leave the issue to the uninterrupted efforts of nature.

Such are the outlines of this valuable posthumous morsel. Having, in the progress of our review, already given an opinion of its merits, it cannot be necessary to add more. To recommend it may seem superfluous, as none who are in possession of the doctor's former numbers will fail to add this. But we would further remark, that, independent of every such consideration, the present sheets make a complete and valuable whole on diseases, the terror of parents who have children even at the best regulated schools, hitherto most imperfectly described and too often empirically treated. The editor has been careful to give an explanation of certain terms, without referring to the early definitions.

The Case of Joanna Southcott, as far as it came under his professional Observation, impartially stated. By P. MATTHIAS, Surgeon and Apothecary, Mableton-place. 8vo. 1s. pp. 22. Callow.

A correct Statement of the Circumstances that attended the last Illness and Death of Mrs. Southcott, with an Account of the Appearances exhibited on Dissection, and the Artifices that were employed to deceive her Medical Attendants. By RICHARD REECE, M.D. 8vo. 4s. pp. 107. Sherwood and Co.

IT appears that Mr. Matthias was first consulted upon Mrs. Southcott's case, by Mrs. Townly, whom he was then attending, and with whom the prophetess resided. Without being permitted a sight, enquiries were made concerning the probability of a virgin of sixty-four being pregnant, to which, of course, a rational practitioner could make only one answer. In the month of August last, however, he was admitted to the august presence of this celebrated female, and even allowed, among other examinations, *pectora tractare*. This is the only part of the examination which we shall take the trouble of noticing.

Mr. Matthias says, "I could find no appearance of milk in her breasts: they were swollen, and the vessels full and tumefied, but more like glandular enlargements." Now, if the breasts were enlarged from pregnancy, what could that increase consist of but glandular enlargement, with full and tumefied vessels? No notice is taken of the appearance of the nipples or areolæ. It is remarkable that all who give any account of this case, admit some change in the mammæ,

which is a fact worth recording in a woman of that age, and of which we shall hereafter say more.

Mr. M. seems, according to some very prevalent opinions at present, to impute most diseases to the biliary system. Thus the colour of the stools is carefully described, and they are said to be sometimes clay-coloured, sometimes black and offensive; and, among other remedies, we find *hydrargyrus submuriatus* proposed. But, like some others, Mr. M. was soon dismissed, when it was found that his opinion did not accord with the wishes of Joanna and her friends.

Dr. Reece, though he did not see the patient till a most respectable physician had pronounced that she was not pregnant, did not scruple to give a different opinion. He was introduced by one of her believers, a most pious man, and afterwards waited on by a clergyman of the English church, a near relation of a noble lord, whose name he bears, and several others; of all whom we may say, that they were anxious to be deceived. The rest of the detail is too uninteresting and too generally known to require our notice. We shall only offer a few remarks on the dissection.

Nothing seems to have occurred worth notice but the enormous quantity of fat. There is some obscurity in the account of the liver. Dr. Reece says, "The liver appeared dark, and rather soft in its texture, which I considered to be the consequence of a disorganizing process taking place after death; it was not enlarged." Mr. Matthias says, "The liver appeared as one putrid mass, but of its natural size." One putrid mass is very different from a dark appearance, and rather soft in its texture. However, as the whole body was putrid, we would make allowance for the different language of different writers. But, in accounting for the symptoms during life, Mr. M. adds, "The affection in the kidneys, various pains in the loins and shoulder-blade, are ascribable to this organic derangement of the liver and gall-bladder."

We have dwelt so long on this apparently-minute circumstance, to show how possible it is for the best-intentioned people to render prominent a fact of little importance. All the other medical people whom we have seen, agree that the liver appeared sound; but the necessity of hydrargyrus muriatus in so many diseases, and all for the purpose of curing the liver, has induced a too general opinion that all are ascribable to that cause. It is true, gall-stones were found in the gall-bladder, but they do not appear to have obstructed the passage of the gall.

Dr. Reece conceives the circumscribed enlargement in the lower part of the abdomen, and which he perceived during life,

life, arose from the contrivance of the deceased to keep the urinary bladder full, when she expected to be examined by one of the faculty. This, we conceive, could hardly have been perceived through so large a quantity of fat. The altered appearance of her breasts, and even of her nipples, he imputes to the artificial extraction of the latter.

On a retrospect, the whole appears perfectly ridiculous; but this short notice may at least serve as a memorial of an event which at one time produced no inconsiderable effect on the public mind. It may not be destitute of another advantage. Joanna swore herself with child. It is not uncommon for younger women to swear themselves not with child. The uncertainty of any examination excepting *per vaginam*, should at least make us cautious of a hasty decision, however suspicious the symptoms may seem.

The Morbid Anatomy of the Brain in Mania and Hydrophobia, with the Pathology of these two Diseases, as collected from the Papers of the late Andrew Marshal, M.D. &c. By S. Sawrey, Member of the Royal College of Surgeons, &c.

(*Concluded from p. 60.*)

In our last we gave the most interesting particulars of Dr. Marshal's life, we now proceed to his posthumous works.

The first part contains experiments to support an opinion of Dr. Marshal, that no fluid whatever is found in the pericardium of an animal, unless occasioned by previous disease, or the manner of death. The experiments are few and decisive, but we cannot say important; for, whether that membrane contains a *tea-spoonful* of fluid, or only a condensation is found after death of a fluid constantly exhaling during life, scarcely deserves the sacrifice of the few victims which were made on the occasion. They are, however, worth recording, particularly that in two drowned cats a bloody fluid was found in the pericardium, and also in the pleura; and that no fluid was discovered in the ventricles of the brain.

Two cases of hydrophobia follow, related, no doubt, with equal accuracy and minuteness. Such histories have been now so multiplied, that they lose much of their interest, unless of recent occurrence. A comparative view of the symptoms follow; and, after that, the examination of each after death. This, we must say, is by far the most important.

"The body of the lad," says Dr. M. "which I examined by the direction of Dr. Pitcairn, in the public theatre of the hospital, before many witnesses, all competent to judge of the facts presented, and about a day and half after his death, a little after midsummer, I found as follows:—

"The whole cavity of the mouth, and internal fauces, was superficially whiter than usual, and made wet with a whitish thin saliva, standing frothy, as if in a lather, in all the natural interstices about the isthmus of the fauces. The membrane, lining the whole cavity of the mouth and internal fauces, was unusually firm, and contracted tight around the tonsils, which stood out round, hard, white, and smooth, like two buttons;—the velum pendulum palati was contracted in breadth, and the uvula appeared firmer and rounder than common.

"The passages up into the nose were not particularly searched; the passages downwards were altered somewhat in capacity, and in the structure of the parts:—the pharynx was thrown into longitudinal wrinkles, and the same appearance was found in the œsophagus. The top of the laryax was unusually open, and the epiglottis appeared a little narrower, and more peaked than usual;—the ligaments of the glottis appeared to be unusually tense. Whether the wind-pipe downwards was contracted, did not then occur as a matter to be looked into. The membrane of the mouth and internal fauces, as well as the inside of the larynx, trachea, and œsophagus, were marked here and there with dark purple-like suffusions, and, in some places, coloured with distinct ramifications of small distended red vessels. The dark purple-like suffusions appearing also about the upper parts of the pharynx; a scarlet uniform redness over the whole tongue, at the roots of the paler papillæ. There were ramifications of red vessels about the epiglottis, and inside of the larynx; and the inside of the trachea was coloured with vessels of a darker red.

"When the chest was opened, we found the heart rather of an under size for the body; the anterior ventricle flat; the sinistro-posterior ventricle rounded, but unusually firm, even approaching to hardness. The ventricle was empty, and the substance of the whole heart, when cut into, was pale in colour, and, as said of the left side, unusually firm; a dark suffused spot or two appearing under the investing membrane, near the basis of the sinistro-posterior ventricle, as if from the rupture of some minute vessels in the substance of the muscle.

"The great vessels of the thorax appeared, with the vasa vasorum, as if minutely injected, and of a vermilion colour, especially the great oblique arch of the aorta. The pericardium was slightly reddened with ramifications of the vessels. The whole pleura of the left lung of the same vermilion red colour, with turgid vessels. When this lung was cut into, some liquid blood of the same light red colour oozed out of its substance.

"Some adhesions, evidently the effects of a former affection about the breast, having nothing of the gloss of the surfaces mentioned,

tioned, were found between the left lung and ribs. Right lung was not so reddened; but the dark red appearance of the inner membrane of the trachea descended into the bronchia, and entered into the internal surface of both lungs.

"No other traces of morbid alteration were noticed in the thoracic viscera. The lungs were perfectly free from tubercles, soft, spongy, and uniform in their texture.

"The abdomen presented no less conspicuous, and, I think, somewhat similar morbid alterations. The stomach, otherwise perfectly sound in all its texture, was, however, marked in the inside with broad purple-like suffusions, especially about its thick end; the natural rugæ deeper than usual, and nearly empty: it also seemed to me to have taken on a morbid degree of elasticity, for, on expanding the rugæ, by extending a portion of it, it returned with unusual force to its wrinkled state.

"The pylorus appeared like a narrow ring projecting upwards into the cavity of the stomach, with scattered ramifications of distended red vessels, in the omentum and mesentery.

"The inmost coat of the intestines was marked in different places with dark purple suffused spots; the intestinum ilium was full of rugæ; and the rugæ of the villous coat of the rectum were deep, and larger than common. This intestine being expanded, resisted, and returned with an elasticity, like that of the stomach. Soft fœculent matter of the usual colour remained in the great intestines.

"The liver was of the usual healthy appearance, but the ductus cysticus was constricted, and almost impervious; whether there was any unusual construction of the ductus communis, was not adverted to.

"The tunica propria of the kidneys was coloured with numerous ramifications of blood-vessels, containing a blackish blood; their substance was whitish, and in the infundibula a whitish gruel-like fluid was found.

"The bladder was contracted, quite empty, and marked in some places with dark suffused spots. The urethra, being divided at the membranous part, was contracted to the size of a corking pin.

"Last of all the head was opened, and the following appearances were observed. An unusual moisture and lubricity between dura mater and arachnoidea; and the pia matral vessels appeared more numerous, blacker, and more distended than is usual in health. When the substance of the brain was sliced off, not only were numerous reddish points left on the cut surfaces, but in a few seconds dark-coloured blood issued copiously from the cut vessels, and each point was converted into a broad blot of dark brown blood. The substance of the brain was in a small degree firmer than a healthy brain is; the ventricles of the brain contained a quantity of water, though they were not distended with it, and on its being let out, the fine membrane lining the ventricles was seen marked with ramifications of vessels, turgid with dark-coloured blood.

"*Morbid*

"*Morbid Appearances in the Woman.*—Dr. Hamilton, when he was informed that the appearances above-mentioned had been observed in the body of the lad, with a liberal spirit of medical research, caused the body of the young woman to be retained for a similar examination. The dissection was accurately performed by Mr. Blizard, (now Sir Wm. Blizard,) in the operating theatre of the hospital, before a number of competent judges of morbid appearances.

"The body had been dead about a day and a half, in temperate weather of the month of April, and no visible putrefactive change had commenced.

"The head was first opened, and the following morbid alterations appeared. The dura mater, instead of having the healthy colour, was of a dark hue; the larger branches of its arteries, which in health are the only red arteries visible, were tense and turgid, with livid liquid blood; and the smaller branches, which are usually colourless, were filled, as if strongly injected, with blood of the same colour; the veins were distended with the same kind of blood. As a membrane, it was unusually dark-coloured, from being overloaded with blood; and being lacerated in one place in the separation, upwards of a tea-spoonful of the same livid coloured blood was shed on the outside of it.

"There was water between the dura mater and tunica arachnoidea, so copious, that when the brain was drawn aside against the lower part of the skull, it collected in a considerable quantity between the brain and dura mater, at the edge of the divided skull.

"Water was also evident between the tunica arachnoidea and pia mater, for the cellular membrane which connects the two was swollen with it. There was also water between the pia mater and brain. When the brain was cut off in slices, the surfaces showed numerous brown points, which quickly spread into as many blots of the same colour, larger than any I had ever seen in any brain before.

"Both lateral ventricles were distended with a straw-coloured fluid; and the same kind of fluid was found in the other ventricles, with a watery appearance of the plexus choroides.

"The basis of the brain presented an appearance altogether new to me. The four arteries of the brain were tense, and filled with the same kind of livid brown blood, and all their branches in the pia mater were much distended with the same kind of blood.

"In the neck the jugular veins were unusually small, but very tense and full; the carotid arteries were also tense and small.

"In the thorax, the heart was found situated unusually erect; left side unusually firm, and containing some liquid dark brown blood; right side of the heart flaccid and empty. The oblique arch of the aorta smaller than usual, and contained a florid coagulum.

"The whole membrane lining the larynx (mouth not examined) was marked with dark red suffusions; and the membrane of the trachea downwards into the lungs was of an uniform red colour.

"The surface of the lungs or pleura was of a dark red colour, with numerous suffused patches of a more florid appearance.

"Dark patches, or suffusions of a dark colour, appeared on the inside of the stomach, and here and there in the small intestines. Stomach empty, and firm in its texture. Pylorus unusually projecting into the cavity of the duodenum.

"The contents of the pelvis were coloured with uniform suffusions, or purple-coloured ramifications of turgid blood-vessels. Bladder of urine was marked inside with dark suffusions, and almost empty."

Some remarks follow "on the pathology of hydrophobia," which, to say the least of them, are as good as any others that have been offered.

An appendix to this account is added, by Mr. Sawrey, containing some further cases, with judicious remarks.

Part the 3d is on the Morbid Anatomy of the Brain in Mania. This is the result of several examinations in Bethlem Hospital. They are divided into two classes. In the first, the brain only was examined; in the second, the heart and arteries. Such records are always valuable. Mr. Sawrey, in his introduction, remarks, that, before these examinations, a general opinion prevailed that no morbid appearances were to be detected in the brain of maniacs. We venture to differ from him. Before Dr. Marshal was known in London, an opinion prevailed that the brain of maniacs was particularly firm. Dr. Baillie refers to this opinion in his Morbid Anatomy, but considers it as shaken by Mr. Haslam's observation. We confess, however, we are more disposed to attend to the remarks of a practical anatomist; and it is certain that the exceptions to this state of the brain are very few in the histories before us. The records are rich, and extremely valuable. We only wish they were still more numerous. In the first were discovered, among other appearances, air bubbles in the veins at the basis of the skull,—a fact which has been denied by many, and observed by very few. In most of the others, the brain was particularly firm, the ventricles enlarged, and filled with fluid; the veins of the pia mater in many turgid, with dark-coloured blood; the tunica arachnoidea either suffused with a gelatinous substance, or filled with fluid limpid or straw-coloured. In one, this appearance, with the hardness of the brain, was attended with a peculiar deficiency of blood in all the vessels about, and even in, the substance of the brain; ossification of the arteries was frequent. There are fifteen cases in which the brain only was examined. Seven follow in which the heart and arteries were examined also. Whether this difference arose from some morbid symptoms during life, we

are

are not informed; nor by the previous history, can such symptoms be always inferred. It is, however, remarkable that none of the subjects were without some diseased appearances about the thorax, which shows the propriety, in all cases, of examining all the cavities.

The fourth part contains Observations on the Nature of Mania. An introduction informs us that the remarks were penned at different times by Dr. Marshal, and are now collected by the editor. After this, we have a long chapter on the functions of the brain and nerves. This is replete with matter partly physiological, pathological, and metaphysical. We cannot condemn our author if he has offered nothing new or satisfactory on these intricate subjects; but we regret the time which men of industry and integrity lose in this way. There are, however, remarks on the effect produced on the brain, and thence on the mind, by generally disturbed vascular action, which, to say the least, repay the labour of perusing the chapter.

The second chapter is on the proximate Cause of Mania. These the author refers to altered action in the vessels of the brain, or of the arterial system; and certainly the dissections, with the histories by which his work is enriched, seem to justify the conclusion. But still there is a difficulty which the author only slightly hints at. If he has no more knowledge on the subject than he gives us, he should have acknowledged it; if he has, it should have been communicated. We refer to his remarks on the original formation of the brain, and the effect produced by it on the intellect of the subject. We can scarcely doubt the truth of this; but, when Dr. M. speaks of it as demonstrable, we cannot but feel a wish to know his facts.

A chapter follows to account why "marks of disease are not always apparent in the brain of maniacs after death." Here the author considers that there may be so strong a predisposition or liability to the madness, as may be sufficient to induce the disease from very slight causes, and that, when the disease is induced, an action must take place in the brain, which may become permanent or be re-excited from similar causes. We are not disposed to doubt this; but does it prove more than that in such subject there is a peculiar conformation of the brain, which hitherto has not been discovered? If discovered, we shall probably not be able to alter it; but we may learn to make certain provisions in such subjects, as will be the means of exciting as little as possible such a latent disposition into action. This subject is somewhat illustrated in a short chapter "on the predisposing or exciting causes." The last chapter, "on the varieties

rieties of madness," cannot be expected to contain much information.

On the whole, however, we may regret that the work is not so complete as we could wish, we are ready to admit that it contains much information. We sincerely hope that the liberal example here given of nearly thirty cases of dissection of maniacs who died in a public hospital, and whose bodies were examined by a professed anatomist, will be reduced to a register; and that by such an accumulation of facts, something may be discovered concerning this formidable and melancholy complaint.

Edinburgh Medical and Surgical Journal, October, 1814.

THE following are the remaining papers of No. XL. not yet noticed in our Journal.

Report on the Use of Charcoal Powder as a substitute for Cinchona. By R. CALVERT, Physician to the Forces.

So many remedies are well known in the cure of intermittents, that there is reason to believe we sometimes forget the disease was ever cured before the introduction of the Peruvian bark into Europe. The snuff of a candle in wine is an old remedy all over Italy. We mean not by this to undervalue the hint here offered, as it is impossible to multiply our resources too much, especially against diseases of frequent occurrence, and sometimes untractable by medicines of known virtue.

Case of Singular Affection of the Mamma, cured by the use of Iron and Kali Purum. By THOMAS SALTER, Esq. Member of the Royal College of Surgeons, London.

This disease seems to have been that species of cancer which Dr. Adams denominates *Hydatis cruenta*, with this peculiarity, that the cysts were on the surface. It will be recollected, that from the theory Dr. Adams built on the separate vitality of those cysts, Mr. Carmichael attempted the cure of them by the use of iron, inferring, that as all aquatic animals are injured by ferruginous springs, the cysts, if really animalcular, might suffer in a similar manner. His success has produced a very general use of the remedy. The present paper illustrates the theory as far as can be judged by general analogy. The life of the cysts appears to have been destroyed; but to dislodge their dead tunics, which adhered in the form of sloughs, a caustic application was found necessary. The carbonate of iron was also used internally.

Case of Ischuria Renalis. By Dr. Laing, Fochabers.

This case exactly resembles others of inflamed kidneys, and gave way to the antiphlogistic treatment. The author remarks,

"In this case, the functions of the kidneys appear to have been entirely suspended for nine or ten days, without any material injury resulting to the rest of the system. During this period, the perspiration was not sensibly increased; and there was none of that urinous smell about the patient which frequently attends suppression of urine. The only evident outlet for the quantity of liquids introduced into the system, was the copious watery discharge produced by the purgatives. The immediate cause of these symptoms appears to have been an inflammatory affection of the kidneys, indicated by the pain in the back, feverish symptoms, and sizy blood; but differing materially from ordinary nephritis, in the absence of the acute pain, high fever, vomiting, and frequent painful micturition, which characterize that disease, and in the total suspension of the urinary secretion. On what this difference depended, it is not easy to determine. Probably the membranous coverings of the kidney may be principally affected in acute nephritis, and its medullary substance in the present case. This would, in some measure, account for the more acute pain, fever, and vomiting, in the former case; and for the less urgent general symptoms, but more complete suspension of the functions of the organ, in the latter."

There are certainly different degrees of inflammation, but a suspension of the secretory function prevails more or less in all; nor should we be quite certain, where a patient makes many watery stools, that no urine is ever mixed with them.

Remarks on the Puriform Ophthalmia. By William James Wilson, Fellow of the Royal College of Surgeons, London, and Surgeon at Manchester.

This is a good practical paper, but contains nothing very new.

Observations on the Use of Ipecacuanha and Opium in Dysentery. By Mr. William English, Surgeon.

The use of ipecacuanha in small doses, combined with opium, is well known in the chronic dysentery. Mr. English wishes to recommend, in a more severe form of the disease, large doses, to the quantity of 20 or 30 grains, given with a still larger dose of tinct. opii. By these means the ipecacuanha will sometimes remain on the stomach altogether; at others will not be vomited till several hours after it is taken, and in both cases produce very beneficial effects. If the medicine is ejected as soon as swallowed, it is always repeated.

repeated. The cases given are pointed, and the whole paper may be considered as useful and practical.

Observations on the necessity of Opening the Sac in the Operation for Hernia. By J. PENKIVIL, Surgeon, Plymouth Dock.

This is a well-digested paper, and shows, with much propriety, the absurdity of the great apprehension at one time entertained of admitting the external air within the abdominal cavity; and also the importance of opening the sac in most operations for hernia.

Medico-Chirurgical Transactions, Volume the Fifth.

(Continued from p. 69.)

DR. CHESTON now determined to remove the bony case, and raise the head from the chest. The left arm and thigh, as well as the parts of generation, were destroyed in the investigation; but the right arm and leg were brought into view by a careful removal of the left foot and right side of the face.

"The position of the child in the cyst was very similar to that which it holds in the uterus; in which the body and limbs are brought nearly into a globular form. The spine was incurvated; the head bent forwards upon the chest, and the pelvis upon the abdomen, and the limbs folded between the pelvis and head. All the parts were most forcibly compressed, and, as it were, closely squeezed together by the bony cyst; hence the limbs were all distorted and deformed, and the figure of every part variously affected. Towards the middle of the tumour, the body and limbs, when carefully separated, were found in the most complete state of preservation: the skin, adipous substance, and muscles, retained much of their natural consistence and characteristic appearances; but parts were less distinct on the circumference, from the strong adhesion of the bony covering to the whole surface of the mass. The cyst grew so firmly to the child, that it could only be separated by very forcible means; by the employment of which the soft parts attached to the internal surface of the tumour were necessarily sacrificed, and they presented a very imperfect and mutilated appearance when this separation was accomplished. It seemed that the cyst had absorbed the integuments and muscles of the parts which were situated in contact with it; thus, in one of the arms, which occupied this position, I found that half of the limb, which was turned towards the centre, as full and plump as usual, while the other portion lying towards the circumference, had lost all the soft parts, down to the bone, which was in contact with the cyst, and firmly compressed by it through its whole ex-

teat. The scalp, on which there were some trifling remains of hair, had lost its firmness and consistence, so as to separate from the cranium on the slightest touch. The integuments of the face, body, and limbs, still retained so much of their natural plumpness, that, by the compression, the contiguous parts were reciprocally indented.

"The contents of the thorax and abdomen, as far as their exposure by the longitudinal section would enable me to judge, retained much of their natural appearance, and not the least tendency to putrefaction could be observed in any of them.

"The brain was rather more firm than in its recent condition, and nearly of its natural colour. The lungs were in a compact state. The liver was of a dark brown or umber colour, and the intestines deviated but little from their usual membraneous appearance, though compressed together into an irregular mass.

"Although the body of the child was in a very complete preservation, and all its component parts could be readily distinguished, yet it exhibited a very different appearance from that of a subject lately deceased. It was very firm and compact, as if condensed by great pressure; hence it seemed completely deprived of its fluids, and formed, therefore, a contrast to the juicy state of a body recently deprived of life; of blood, either in a fluid or coagulated state, (with an exception that I shall notice directly) or of that colour, which results from this fluid being contained in the vessels of a part, there was not the slightest appearance. The muscles, instead of being of a bright red, and fleshy, were of a brown hue, and the integuments possessed a very light brown or yellowish tint; the colour in both cases was somewhat like that produced by long immersion in spirits of wine. The bones were brown, and drier than usual; they separated very easily from the periosteum and epiphyses. Of the membranes, placenta, or navel-string, I could not discover any remains, excepting the insertion of the latter into the body of the child.

"One circumstance more deserves to be noticed: near the upper part of the cyst, internally, was a coagulum of blood, apparently in as recent a state as if it had not been extravasated from the vessel an hour before; it was full in colour, and firm in its substance, but, on exposure to the air, it soon dried, leaving little more than a mere stain on the part."

The author is decidedly of opinion that the child was originally contained in the uterus, and remained there the usual term of gestation.—He concludes this very interesting narrative with some ingenious remarks, and the following singular case.

"Jane Hawes, a healthy well-made woman, about twenty-five years of age, was the mother of two very fine children. Her labours had taken place at the proper periods, and were natural in every respect. The last child was born after a very quick labour; and

and the mother, in each instance, got well in a short time, without the occurrence of any thing worthy of remark.

"In the summer of 1795, when her youngest child was about two years old, she became again pregnant, and I was desired to attend her. She went her full time without the smallest inconvenience, and, at the end of nine months, was seized with pain, which was supposed to be labour, and I was sent for. When I entered the room, the pain appeared to me to be so acute, that I concluded her delivery would shortly take place, as had happened in the former instances.

"Upon examination, however, *per vaginam*, I was surprised to find no disposition to dilatation of the os tincæ. The neck of the uterus was quite obliterated, and I could plainly feel the child through its substance; but though the pain was strong, there did not appear to be any forcing power accompanying it, and it had not that peculiar striving on the part of the mother, so familiar to those who have been in the habit of attending cases of midwifery. As she had no disposition to fever, and felt no inconvenience during the remission of her pains, I contented myself with directing an anodyne medicine, and thought it most prudent to wait patiently, and observe what course the efforts of nature would take.

"These pains, however, continued for nearly three days, during which time no further advances were made to delivery; and they were, from time to time, mitigated by opium and other antispasmodic remedies, with fomentations applied to the whole region of the abdomen.

"During this period, I had frequent opportunities of satisfying myself that the uterus had undergone that change which an ordinary pregnancy produces; and I could not but conclude, that at this time the child was in its cavity. In the beginning there had been a small discharge, which increased on the third day in quantity, and became coloured with blood.

"On the third day, fever, and symptoms of inflammation took place; and these spasmodic pains, which had at times been very violent, by degrees subsided, and were succeeded by tenderness of the belly, and pain arising evidently from a new condition of parts. These symptoms were controuled by an antiphlogistic plan; and in the course of ten days, the inflammatory symptoms began to subside, and were succeeded by considerable discharges of a very fœtid and purulent matter.

"In the progress of this case, during the following six months, great emaciation, with hectic fever, came on, and her strength was supported, as well as it could be, by bark, wine, opiates, and other tonic medicines, together with as generous a diet as her stomach was capable of bearing. About this time the discharge began to diminish, and her general health improved; and in about fifteen months from the beginning it had entirely ceased, and she regained her usual flesh and strength.

"During this time, her size had gradually diminished; and she

was left with an enlargement of her belly, about equal to the size of a woman six months gone with child. She resumed her usual occupation, which was that of keeping a grocer's shop, and continued perfectly well till the autumn of the year 1800, when, to my great surprise, she told me she suspected she had again become pregnant.

"Upon inquiry, I found that menstruation had regularly taken place for more than a year before this time; and, upon hearing all she had to say, I was satisfied that her conjecture concerning herself was well-founded. She went on without any thing remarkable happening, till the December of that year, when she was taken regularly in labour.

"Upon examination, I found a round solid substance, occupying the upper part of the pelvis, and extending from the base of the sacrum, to within less than three inches of the upper rim of the pubis.

"At first I was deceived, and took this substance for the head of the child; but a more minute examination convinced me that it was a solid bony tumour, immoveable, appearing to be firmly fixed to the base of the os sacrum. On passing my fingers as high as I could, between the anterior surface of this tumour, and the pubis, I plainly discovered the os tincæ, in a state of dilatation; and I could distinctly feel the foot of the child.* As her pains were not very rigorous, and her strength and spirits were unexhausted, I waited, and allowed the labour to take its usual course. It was evident, however, that there was not room enough to save the child, and at a proper time I proceeded to deliver her by the feet.

"This proved to be a work of great difficulty, and it was impossible to succeed without diminishing the size of the head by the crotchet.

"The whole of the child was brought away, and the usual discharges took place. I apprehend that some violence might have been done to this bony tumour, which was so much in the way; for symptoms of very extensive inflammation came on, shortly after her delivery. Suppuration followed, with immense discharges of fœtid matter, with hectic fever, and great emaciation. She lingered on in this wretched state, till ulceration took place, which extending downwards, in the course of a few months, destroyed

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"* At this time I was desired to see her with Dr. Briggs and Mr. Newell. The cæsarian operation was mentioned, but rejected from the too probable diseased state of neighbouring parts. It was, therefore, determined to quiet general irritation by opiates, and to guard against any inflammatory tendency in the uterus by cold spirituous applications over the abdomen. These means were pursued for two days with every apparent success; and on the third, Mr. Newell, finding some further advances towards the exclusion of the child, proceeded to give her every assistance."

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the vagina and rectum, and her stools, urine, and discharges, came, seemingly, out of one great cavity. During the progress of this wretched case, various bones of the former fœtus were discharged, and, after lingering in the most cruel sufferings for about ten months, the unfortunate woman died.

"It is very much to be lamented, that no entreaties could prevail with her friends to allow an examination of the body. The fact of the reality of the former impregnation was sufficiently proved by the discharge of fœtal bones; but dissection would doubtless have thrown much light upon this very singular case."

An account of some Diseases of the Toes and Fingers, by Mr. James Wardrop, contains some good instructions for remedying defects in those parts, which, from slight and inconsiderable beginnings, are ultimately productive of great pain and serious distress. The first affection which he notices is where inflammation and suppuration take place in the soft parts contiguous to the nail, generally denominated "the growth of the nail into the flesh." The disease, however, does not originate from any peculiarity in the growth or formation of the nail, as has been hitherto supposed, but, according to Mr. Wardrop, by its mechanical resistance to the tender flesh, occasioning a constant source of irritation. The cure consists in applying caustic to the soft parts.

Ulceration at the root of the nail sometimes produces very unpleasant consequences, as the loss of a nail, and even of a limb. Mr. Wardrop has found benefit in these cases by a course of mercury.

For corns, he recommends, as certain remedies, the application of caustics, or of a strong solution of muriate of mercury, after cutting off as much of the corn as possible. In chilblains, he warmly recommends an embrocation of six parts of soap liniment to one of tincture of cantharides.

Mr. Wardrop is very commendable in bestowing his attention upon these subjects, which are often shamefully neglected by men of superior education; and we think him liberal in publishing the result of his practice.

In a paper by Dr. Stewart, upon some of the Causes which destroy the Fœtus in Utero, an interesting case is related. The patient, it seems, was delivered of a dead fœtus for eight successive times, in spite of the remedies which Dr. Stewart employed. The chief symptoms which he had to combat, occurred in the sixth month of pregnancy, and were severe pains in both sides, and in the abdomen, accompanied by diarrhœa. They continued till the middle of the seventh month, when they suddenly remitted.

In the ninth pregnancy, Mr. Croft was consulted. He directed, "that, in addition to the use of the cold shower-bath, and

and tonics combined with antispasmodics, as soon as symptoms of irritation of the bowels came on, two or three grains of opium should be introduced into the rectum, and that this was to be repeated as often as there was any degree of tenesmus." The patient found so much relief from this plan, that she went on to the full period of pregnancy, and was delivered of a healthy boy.

Mr. Lawrence, of St. Bartholomew's Hospital, has furnished an account of a Child born without a Brain, and which lived four days:

"The brain and cranium were deficient, and the basis of the latter was covered by the common integuments, except over the foramen magnum, where there existed a soft tumour, about equal in size to the end of the thumb. The smooth membrane covering this was connected at its circumference to the skin. The child, as is generally the case in such instances, was perfectly formed in all its other parts, and had attained its full size. It moved briskly at first, but remained quiet afterwards, except when the tumour was pressed, which occasioned general convulsions. It breathed naturally, and was not observed to be deficient in warmth, until its powers declined. I regret, that from a fear of alarming the mother, no attempt was made to see whether it would take the breast; a little food was given to it by the hand. It voided urine twice in the first day, and once a day afterwards: it had three dark-coloured evacuations. The medulla spinalis was continued for about an inch above the foramen magnum, swelling out into a small bulb, which formed the soft tumour on the basis of the skull. All the nerves, from the fifth to the ninth, were connected to this. The intestines contained a moderate quantity of the usual dark-coloured substance; and there was a little fluid, of the ordinary appearance, in the gall-bladder. Sœmmerring and Morgagni have observed, that most of these acephalous children are females; and it has been found, in many instances, that the renal capsules were very small. The present case exemplified both these observations."

In a second case of malformation which Mr. Lawrence witnessed, the whole of the spinous processes were deficient, and the place of the medulla spinalis was supplied by a vascular membrane, like that which covers the basis cranii in acephalous children, united in the same way to the surrounding skin. The heart, lungs, and liver were deficient; and the ribs, short and imperfect, lay close to each other, and did not form a thoracic cavity. The face was malformed. The fingers and toes were fewer than usual: in other respects, the formation of the body and the size of the limbs were natural. Having stated these cases, the author gratifies the admirers of human curiosities with a choice selection from various writers, ancient and modern; we have histories of spotted men, porcupine men, men with all the internal organs

transposed, supposed hermaphrodites, double bodies, double heads, bladderless beings, imperforate rectum, one-eyed men, and men whose heads do grow beneath their shoulders: in short, the assemblage of monsters is rare and extensive. If the catalogue furnished by Licetus contain a greater number and variety of specimens than the selection of Mr. Lawrence, the latter has the advantage in his instances being supported by indubitable evidence. Hitherto such cases have been of no other utility than to prove that nature is not always perfect in her works; while the reasoning upon them has been vague and ridiculous. Aristotle, indeed, has usually been resorted to for the solution of all knotty points in the mysteries of nature, and the adepts in his philosophy have no difficulty in explaining the origin, cause, and final design of monstrous productions. We need hardly observe, that Mr. Lawrence has not contented himself with merely compiling a volume of facts in themselves very useless; he has refuted various absurd opinions which have prevailed upon this branch of natural history; and his whole paper is interspersed with original observations and just deductions, some of which we shall transcribe; and we have the greater satisfaction in so doing, because we know of nothing tolerable on the subject in any other work.

"Notwithstanding the general similarity of parts in the same species of animals, there is considerable variation in those details of structure which do not affect the execution of the functions, nor interfere with the general form and relations of organs. The smaller parts, and particularly the blood-vessels, differ in almost every two bodies; so that it would be very difficult, if we descended into minutiæ, to settle precisely what ought to be regarded as the most frequent, and therefore the *natural* structure. In parts, however, where one model is generally adhered to, deviations occasionally take place: these aberrations from the accustomed type, are called by anatomists *varieties*, or *lusus naturæ:* when the body in general, or some large and conspicuous part of it, deviates from the accustomed formation, which deviation is accompanied generally with imperfection in some of the functions, the creature is called a *monster*. No very accurate line can be drawn between these and varieties; nor can we assign a rigorous meaning to the former term, which is generally used in a loose and popular manner.* A considerable anomaly in the form or structure of a particular organ is often called by anatomists a *monstrous* formation.

"* 'Monstri vox,' says Haller, 'ex ipsa linguæ natura videtur designare aberrationem animalis a consueta suæ speciei fabrica adeo evidentem, ut etiam ignarorum oculos feriat. Nobis vis vocis perinde videtur indicare fabricam, etiam grandium & conspicuarum partium, alienam a solita.' Oper. Minor. tom. iii. p. 3."

"In the articular ends of bones, there is little variety: a particular shape is better adapted to a particular kind of motion: but in other parts, as the foramina, depressions, ridges, and sutures, deviations from the accustomed model are often observed. The same general rule will apply to the varieties of muscles: the principal object is a certain insertion near a joint, giving a determined direction to the motion produced. These insertions vary very little; but there are many differences in other points, which have no share in regulating the motion. The biceps flexor cubiti has often an additional slip from the humerus, and the latissimus dorsi from the angle of the scapula. The palmaris longus and the plantaris are often absent; but the other flexors of the wrist and extensors of the ankle supply their place.

"In no part of the body are the arrangements less confined to a particular model, than in the distribution of the blood-vessels. Whether the blood pass by one route or another, is of no importance. The great arterial trunks of the body and limbs are not exposed to these varieties, because they generally occupy situations in which they are most effectually protected from external injury. We may remark, also, that the arteries of the upper are much more liable to varieties than those of the lower limbs. The latter are almost constant in their distribution, while those of the fore-arm and hand are hardly alike in any two subjects taken together. There is no obvious principle by which this difference can be accounted for. One or two examples have been observed, in the vena portarum, of a departure from the usual arrangement, completely deciding an important physiological question, which it had not been possible to settle by direct experiment. The trunk of this vein, instead of branching out in the liver, has terminated in the inferior vena cava. Mr. Abernethy found this in a child about ten months old, in which the gall-bladder contained bile, and the body had been well nourished. Another instance, not yet published, was met with by a teacher of anatomy in London, in an individual several years old. As the blood, which had circulated through the digestive organs, passed immediately into the general venous system in these cases, the bile must have been secreted from the blood of the hepatic artery; although so many ingenious physiologists have proved, quite to their own satisfaction, that the blood acquires in its circulation through the intestines, omenta, and spleen, various properties which are indispensibly necessary to the formation of bile.

"There is less variety in the nervous system of animals of the same species, than in most parts of the body. Scarcely any differences are observed in the appearances of the brain, and much fewer in the distribution of the nerves, than of the blood-vessels.

"There is very little variety in the organs of sense; perhaps the mechanism of these, and of the brain and nerves, is nicer, so that a considerable deviation from the ordinary structure would interfere with their peculiar functions.

"Irregularities in the organization of the skin, are more conspicuous

spicuous in the coloured than in the white races of mankind. One of the most striking is the entire absence of colouring matter, constituting the albino, which was first noticed in the negro: this peculiar formation, however, occurs also in the white races, and in various genera, both of mammalia and birds. The colouring matter is equally deficient in the hair and eyes: hence the former is white, and the choroid coat, iris, and pupil of the latter pink."

After brushing off the silly notions of some old women, and of certain ingenious physiologists that would attribute the nævi materni, and many unnatural malformations, to the agency of the mother's imagination on the fœtus in utero, and making some pointed remarks on the effects of domestication in producing disease in animals, Mr. Lawrence proceeds:—

The circumstances just mentioned; the great abundance and numerous kinds of monsters found in the human subject, their comparative rareness and fewer species in the domestic animals, and their entire absence in the wild races, lead us to suspect that they owe their origin to something connected with our peculiar mode of existence in this respect; in short they resemble our diseases, which I believe to be altogether unknown to animals in a state of nature, and to exist in greater number, in proportion as they are more and more completely domesticated. At the top of the scale, whether we regard the number, the complication, or the severity of his diseases, stands the lord of the creation; he has in truth created arts and sciences, made wonderful progress in knowledge and civilization, and he may boast that he has subdued both animate and inanimate nature; but the long and appalling catalogue of the nosologist is well calculated to check his triumph, and make him doubt whether he has not paid too dear a price for empire.

Generation is a function not differing in its essential characters from the other processes of the animal economy. The production of a new being seems on a superficial view so much like creation, according to the notions which men have amused themselves with framing on that subject, that they have conceived it to require some preternatural agency. Regarding this business then as the work of God, and having already assumed that all his works are perfect, they maintain that the young animal is originally perfect, and degenerates into a monster through the action of external forces. More accurate observation discloses to us in this affair merely the operation of secondary causes, and exhibits to us the production and development of the fœtus, as the result of vascular action in secretion and nutrition: in short, however his pride may be offended at hearing it, the simple truth is, that man, considered at the epocha of his first formation, is merely a secretion from the vessels of the ovary.

The function of generation is not more exempt from the operation of disturbing causes than any other in the animal economy. Any violent and sudden impression interrupts it at once by causing

abortion; but minor causes, although their effects are not seen, are not to be deemed inoperative. Particular bodily formations, particular mental characters, and dispositions to certain diseases, &c. are transmitted to the offspring. Indeed, how can we expect that when all the rest of the being is artificial and vitiated, this one part should be undisturbed? I ascribe then the aberrations from the usual form and structure of the body which constitute monsters, to irregular operation of the powers concerned in generation, and place them on a level with respect to their cause, with unhealthy executions of the nutritive, secretory, and exhalant functions. I only mean by these observations, to refer the aberrations of the formative process to the same general principles as the other deviations from the healthy execution of functions, and to protest against the considering them as forming a peculiar case out of the common rules applying to organized beings.

Mr. L. considers the cases of creatures contained in the bodies of others as double fœtuses, or as examples of additional parts annexed to a natural body, in consequence of original malformations.

From the facts now adduced, it results that cartilage, bone, ligament, cellular substance, membrane, intestine can be formed, where no brain, or nerve, or heart, exists, and where there is nothing further than the action of the vascular system; thus proving, that the brain, nerves, and heart, have no share in the formation and nutrition of our organs. It also appears, that the whole growth and formation of a fœtal body depend on the actions of the vascular apparatus. The facts stated by our author, support the opinions of Mr. Brodie and Dr. Le Gallois, that the action of the heart is independent of the brain, but is produced by the influence of the medulla spinalis. One of the acephalous cases also corroborates the fact ascertained by Dr. Le Gallois, that respiration does not depend on the whole brain but on a limited portion of the medulla oblongata, situated at a small distance from the occipital foramen and towards the origin of the pneumo-gastric, or nerves of the eighth pair. The important and interesting matter of this essay has induced us to extend our notice of it beyond the ordinary limits.

The remainder of the papers in these Transactions, being principally chirurgical, have been deferred, on account of some arrangements it was found necessary to make in that part of the editorship. The proprietors can now promise the assistance of a practical anatomist who has the range of an extensive hospital.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.—On Wednesday, the 30th of November, the day of the anniversary election, the Copleyan medal was given to Mr. IVORY for his Mathematical Papers published in the Transactions. The following officers were elected for the ensuing year:—

President,—Right Hon. Sir Joseph Banks, Bart. K. B.

Secretaries,—William Hyde Wollaston, M. D., Taylor Combe, Esq. M. A.

Treasurer,—Samuel Lysons, Esq.

Of the Old Council.—Right Hon. Sir Joseph Banks, Sir Charles Blagden, Knt., Samuel Goodenough, Lord Bishop of Carlisle, V. P., Taylor Combe, Esq. Secretary, Samuel Lysons, Esq. Treasurer, V. P., George Earl of Morton, K.T. V.P., Thomas Murdoch, Esq., John Pond, Esq. Astr. Royal, William Charles Wells, M.D., William Hyde Wollaston, M. D. Secretary, Thomas Young, M.D. Secretary for Correspondence.

Of the New Council.—Mr. William Allen, William Blake, Esq., Rev. C. Barney, LL.D., Charles William Earl of Charleville, Davies Giddy, Esq. M. P., Sir Everard Home, Bart., James Horsburgh, Esq., Alexander Marcet, M.D., Thomas, Earl of Selkirk, Henry Warburton, Esq.

On Thursday, Dec. 15, part of a paper by BENJAMIN TRAVERS, Esq. was read, On the Mechanism by which the Eye adjusts itself to different Distances. It consisted of three parts: 1. A sketch of the different hypotheses to which this mechanism has been ascribed, with the author's reasons for not admitting them. These are the muscles of the eye, the ciliary processes, the supposed muscularity of the lens itself. 2. An account of the anatomy of the eye, as far as it is requisite for the purposes of the paper. 3. His reasons for believing that external pressure is applied to the lens, and that this pressure is sufficient to alter its shape.

On Thursday, 22d Dec. Mr. Travers's paper was continued. He gave his reasons for considering the iris as muscular, and that by means of it the pupil is adjusted to different distances.

Mr. WARD has requested us to insert the following *Report of the General Committee of Associated Apothecaries, &c. held at the Crown and Anchor, January 10th*, 1815.—This Committee having now received a printed copy of the "Bill for enlarging the Charter of the Society of Apothecaries in the City of London, granted by his Majesty King James the First, and for better regulating the Practice of Apothecaries throughout England and Wales," which is intended to be introduced into parliament in the present session, have carefully examined the same.

The committee learn, with sincere concern, that the Royal College of Physicians have not admitted of any alteration or modification of the clause, making it penal for any apothecary, refusing to compound

compound or unfaithfully compounding medicines prescribed, notwithstanding the memorial of this committee, dated May 25th, 1814, to that effect.

Consequently, the committee deem it to be their duty to petition against the Bill, merely that they may be entitled, when the Bill is submitted to a committee in parliament, to appear there by counsel for obtaining such modification of the said clause as they have been instructed to propose; and, likewise, that they may have opportunity to watch over the important interests confided to their charge.

The committee have great satisfaction in remarking, that all the most material suggestions resulting from the general meeting of May 12th ult. or since offered by the committee, have been freely and readily adopted by the Committee of the Society of Apothecaries, who appear actuated by a real desire for the passing of an Act, as consonant with the wishes of every apothecary, as conducive to the improvement and interests of that branch of the medical profession.

The committee have ordered the said Bill to be printed, and a copy to be sent to the chairman or secretary of every district meeting; and that the following resolution be published.

"It appearing to this committee, that several of the country districts have expressed their disapprobation of the Bill now about to be introduced into parliament, from its not including the practice of surgery and midwifery.

"Resolved, That such districts be informed, that these branches of the medical profession could not be embodied into the Act 'for better regulating the Practice of the Apothecary;' but the committee trust, if this Act should receive the sanction of the legislature, that the Royal College of Surgeons will think it right to apply to the same authority for power to superintend the regulation of the practice of surgery and midwifery. If, however, that body should not undertake such application to parliament, the committee will consider it their duty, on the behalf of the Surgeons and Apothecaries of England and Wales, to adopt such measures as they may be advised, to bring in a bill for the accomplishment of that object."

G. M. Burrows, Chairman.

A new method of operating for the cure of Popliteal Aneurism has been employed in Dublin with the most complete success.

The operation was performed by Mr. Crampton, Surgeon-General at the King's Military Infirmary, near Dublin, on the 15th of October. "The femoral artery was laid bare at the usual place, by an incision three inches in length and *compressed*, (but not tied circularly,) by a narrow tape, so as completely to obstruct the current of the blood *with the least possible disturbance to the artery*, or *injury to its coats*. The ligature was, by a peculiar contrivance, applied in such a manner as to enable the operator to tighten or to relax it at pleasure, without interfering with the wound. In two hours and a-quarter the ligature was gently relaxed, but not completely loosened; no pulsation in the ham.

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In twenty-four hours the artery was relieved from all compression; but, as a measure of precaution, the ligature was left in the wound. In forty-eight hours the ligature was withdrawn, and the wound was united by adhesive plaster."

The patient was examined on the fifth day by several professional gentlemen; his health was not in the least degree deranged. The tumor, which had decreased by one half, was without pulsation, and nearly incompressible. The temperature of each foot was 84°.

On the 14th day the wound was nearly healed, and the man went about the ward on crutches.

On the 18th day the wound was healed, and the tumor which could be seen only in the extended position of the limb, was incompressible, and altogether free from pain.

The advantage of Mr. Crampton's operation consists in its imitating in the most favourable way the process of nature, in the spontaneous cure of aneurism.

1st. By interrupting the course of the blood through the ruptured artery, the fluid contents of the aneurismal sac are allowed to coagulate, and the circulation is thrown upon the collateral branches.

2d. The subsequent obliteration of the artery is effected by a natural process, which protects the patient from the long train of sufferings, and of dangers necessarily attendant upon the permanent contraction of a great artery, and its separation from the ligature by the process of sloughing or ulceration.

Magnesia in Human Bones.—Fourcroy and Vauquelin first discovered the presence of magnesia in bones of inferior animals; but they could detect none in human bones. For this they assigned a physiological reason. In man the magnesia is carried off in the urine; but this is not the case in the inferior animals. Hence it appears in the bones of the latter, but not of the former. Berzelius repeated the experiments of Fourcroy and Vauquelin, and could not by their method detect any magnesia in human bones; but he gives another process, by which he assures us he detected it. Professor Hildebrandt, of Erlanger, has lately resumed this subject, and repeated the experiments of Fourcroy and Vauquelin. Like them, he could detect no magnesia in human bones, and therefore concludes that Berzelius was mistaken. Dr. Thompson acknowledges that this mode of proceeding appears very extraordinary: to repeat a process, which, Berzelius himself admits, does not yield any magnesia, and then to conclude that Berzelius is mistaken because the experiment turns out just as he foretold it would. To refute Berzelius' conclusion, it would be necessary to repeat the experiment as he describes it, or to show experimentally that the experiment is incapable of repetition.

Urine.—Professor Wurzer has published a set of experiments on a remarkable urine emitted by a man of the age of 33. He had been

been afflicted with a gonorrhœa virulenta ever since the age of 24. In consequence of cold, to which he had been exposed, his breasts swelled, and a few days after he passed the remarkable urine which drew the attention of Professor Wurzer. It was milk-white, and contained in it no inconsiderable quantity of a matter which possessed exactly the properties of *curd*.

Mr. Carpue, of Dean-street, is the first person in England who has adopted the East Indian operation for remedying the deformity of a lost nose. An officer of distinction lost his nose in actual service in Egypt, though otherwise enjoying robust health. On his return home, hearing that Mr. Carpue had, in his Anatomical Lectures, mentioned the possibility of supplying the defect; and that the story of Taliacotius was not a fable, there being a very beautiful work of his on the subject, in which the whole process was described, and it being known that in India one of the casts of the natives was in the habit of performing this operation, applied to that gentleman, who readily undertook the experiment. The consequence was, that by bringing down a piece of the flesh and skin from the forehead, he has completely succeeded in forming a new nose, which partakes of the regular circulation of the blood, and is not to be distinguished from the original. The forehead has also recovered the flesh and skin which were cut out to supply the deficiency.

Some late Numbers of the Monthly Magazine contain an account of relief to consumptive patients from inhaling the effluvium of fresh-dug earth, particularly under green sod. There are also some remarks on the antiseptic properties of air thus evolved. We have not transcribed them, because they are not sufficiently correct in the pathological part of the inquiry for the readers of a medical work. The hints they furnished may, however, be improved.

In a periodical journal, we meet with a recipe for chilblains, which seems to promise success, and which is at least worth trying in the early part of the winter. It consists of the addition of a small portion of cantharides to the volatile liniment or *linimentum ammoniæ*.

Dr. Jarrold, of Manchester, remarks that distorted shapes, though usually considered as the effect of scrofula or injuries, are for the most part only to be accounted for by some original predisposition. He is preparing a work on that subject. We recommend him in his intended publication to define with accuracy what he means by scrofula. Accidents to which these cases are generally ascribed by parents, are very improbable causes, because an accident which would induce such an effect suddenly, would probably destroy the patient; but sure Dr. Jarrold must be aware how frequently the distorted spine is accompanied with enlarged mysenteric glands, and other diseases usually designated by the vague expression of scrofula. From the ingenious author of

Anthropologia

Anthropologia we expect much information, and shall be greatly disappointed if we do not meet with equal accuracy. We shall be ready to make our pages useful for any previous discussion on the subject, conducted with that propriety which always attends well-informed writers with the best intentions.

The extract of Lactuca *Virosa*, the mode of whose preparation may be found in Collins's Observationes Circa Morbos, is recommended by a German physician as a remedy for Pertussis, which has not only been found successful in his own hands, but has the testimony of men of considerable eminence in its favour. The cases related of its successful employment do not lead us to be very sanguine, but it is at least deserving of trial. A child of two years may take half a grain three times a day; the dose must, however, be regulated according to its effects. This physician divides Pertussis into a catarrhal and a convulsive stage, and considers the remedy to be only applicable in the latter. It is said to be more antispasmodic and diuretic than preparations of the other species of Lactuca, which it is of consequence to observe, as they are frequently substituted for it.

The neighbourhood of Paris has been visited by a severe epizootic among the horned cattle. A report has been given to the faculty by Mr. Hurard, of the National Institute. Though the mischief has not been so considerable as was at one time suspected, yet we are anxious to give a faithful abstract of the paper, as it contains a great quantity of valuable information which may be highly serviceable, should such a calamity ever return among us.

It appears, beyond contradiction, that the disease was imported into France with the hostile and allied armies, and seemed to originate among the cattle attached to the troops by the same means as the camp fever among the soldiers. But it is necessary to remark, that the infection does not spread from cattle to men. This is not easily ascertained in a camp, where man, in common with all the other animals, engaged in the campaign, is often affected with disease, but it has invariably been found that none of the peasantry have suffered when their whole herds have been destroyed by the temporary requisition of their stalls or muck yards, for the camp cattle during the marches of the armies.

The following are the most important paragraphs in the *Résumé*.

"It has always been imported into France by contagion, and that contagion has been owing to animals who have been sent out of their own country, fatigued, heated, badly driven, and badly fed, from which causes the disease has been spontaneously excited or originated without previous contagion. Whatever name may have been given to this disease, it is easily detected by the external symptoms, and on opening dead animals.—Its character is inflammation of the abdominal viscera, principally of the stomach's internal canal and liver, whence have occurred dysenteries and bilious diarrhœa. The allied troops ate of the flesh of animals affected with this complaint before their arrival in France; all Paris and its environs, all the troops who occupied it and surrounded it, were fed during two

months on this meat, even the sick at the hospitals made use of it. The number of invalids was not increased by it, nor did it occasion any epidemic among the troops or the people, and, during this time, a typhus disappeared which had prevailed before the epizootic.

"There is little reliance to be placed on curative treatment, notwithstanding the pretended success announced in some writings, because a very small number of animals were cured; because some recovered without any treatment, by the efforts of nature only, and we must not attribute to the first that which is due only to the last.

"Although the preservative (*preservatif*) treatment is not always infallible, still it is upon that we can more justly reckon; it consists in seasonable blood-letting, in setons, in bathing and frequent washing with cold water, in the use of bitters and acid minerals, in exposing the animals to a free circulation of air, frequent dry rubbing all over the body, fumigation of muriatic oxigenated acids, &c.

"The most essential part of this treatment, (the only part from which we have any right to expect certain results) is that which is the most generally neglected, viz. the entire separation of the healthy animals from the diseased. This separation is the more necessary as the disease is so highly contagious, and as the contagion is propagated by every means of communication."

On the above paper, we cannot withhold a few remarks: first, that the disease was evidently the *typhus contrensis;* and, therefore, we are not certain its origin was similar to the diseases which have appeared among that race of animals in England, which last may have arisen from some constitution of the atmosphere. Secondly, that, though the cattle were ill fed, ill treated, and overdriven, their danger arose entirely from high inflammation, which was more rapid in its progress than it usually is in the best fed of the human race. There is, indeed, a remark to this point in the Résumé: *Elle est generalement mortelle comme le sont toutes les fortes inflammations dans les herbivores.*

That as far as analogy can direct us, we have a confirmation of the propriety of free blood-letting in those camp fevers, which have generally been termed typhoid, and for which we have too long persevered in a stimulant on tonic practice.

We have received Paris Journals, but no later than to the end of November. The following is the only extract we have room for in the present number. They contain also abstracts of two very good communications in the North American Journals. These we shall give in our next number, unless the originals should arrive first.

An Account of a Cæsarian Operation, followed by the most complete success. By M. CHARMEIL, Ex-Surgeon-in-Chief to the Army, &c.—A woman, forty years of age, badly formed, had been in labour for a week, when Mr. Charmeil was sent for; he learnt, that in four preceding pregnancies, she could not be delivered but by the mutilation of the infants. He estimated the

diameter of the pelvis from its anterior to its posterior brim, 15 or 16 lines, giving the superior opening the form of the figure 8.

Despairing of the possibility of terminating the delivery by natural means, he proposed the Cæsarian operation, to which the woman submitted chearfully. The incision was made obliquely at the extremity of the rectus muscle (*sterno pubien*) on the right side, towards which the bottom of the uterus was inclined. A spirting of blood, which appeared when the uterus was cut, stopped directly by the contraction of that viscus. An assistant retained, with his hands, the intestines which were in danger of escaping by the wound. A living child and the placenta were easily extracted. The wound of the abdominal parietes was re-united by three stitches, and covered by a defensive apparatus. Mr. Charmeil was obliged to be absent, and did not see his patient again till the 19th day, when he found her almost well and suckling her infant. Fifteen months afterwards, he again saw her, when she had a ventral hernia, which she easily kept up by a napkin, and which did not prevent her daily occupation. The following year, this woman was pregnant again, she submitted a second time to the Cæsarian operation; a different surgeon operated, following the traces of the former cicatrix. Mr. Charmeil thinks it more advisable to make the incision along the edge of the rectus muscle, than the linea alba, because the subject is less exposed to hemorrhage, and it is by these means those fluids, which ought to come out by the incision, more readily escape.

Mr. Nicholls will commence his first Course of Lectures on the Natural History, Structure, and Formation of the Teeth, at six o'clock in the evening of Friday, the 24th of February. During which, he purposes considering the Diseases incident to the Mouth, and describing the various operations necessary for their removal.

Lectures and Examinations on Physic, Chemistry, and the Materia Medica, by Dr. Hooper and Dr. Ager, at the Theatre of Mr. Brookes, Blenheim-street, Great Marlborough-street.—The next Course will begin on Monday, February 6, 1815, at 8 in the morning.

The Course will comprehend an explanation of,

1. The best method of destroying the different kinds of infection.

2. The most approved way of treating persons who have taken poison, or been exposed to noxious exhalations, with the means of detecting them chemically, and obviating their pernicious effects.

3. The phænomena of galvanism and electricity, and their application to the cure of diseases.

*** The Lectures on the Theory and Practice of Physic will be delivered every morning (Sundays excepted) at eight o'clock; and those on Chemistry and the Materia Medica at nine. Three Courses are given yearly, beginning in February, June, and October, each on the first Monday of the month.

METEOROLOGICAL REGISTER.

From December the 25th, 1814, to January the 25th, 1815.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure. Max.	Min.	Mean.	Temperature. Max.	Min.	Mean.	
○	26	NE	29·59	29·5	29·545	38	31	34	Snow & Rain
	27	SE	29 4	29 2	29·267	37	33	34·3	Rain
	28	SE	29·4	28 99	29·235	46	31	37·3	Rain
	29	SE	29·73	29·69	29·705	48	35	40·3	Rain
	30	E	29·8	29 7	29 737	49	36	43·3	Rain
	31	N	30·04	29·94	29 98	47	33	40	Fair
	1	N	30·3	30·3	30·3	39	32	35·3	Fair
◑	2	N	30 38	30·36	30·37	38	30	33·6	Fair
	3	N	30·34	30·22	30·277	37	30	33·3	Fair
	4	N	30 12	30·04	30·063	36	30	33	Fair
	5	N	30·03	30·01	30 016	35	29	32 3	Fair Snow
	6	NE	30·01	29·99	30·005	33	24	32·6	Snow at night
	7	NW	29 92	29 68	29·76	34	26	28·6	Fair Rain
	8	NW	29 74	29·74	29·74	35	25	29	Fair
	9	NW, SW	29·97	29 8	29·907	35	28	35·3	Fair
◔	10	SW	29·77	29·75	29·765	43	37	36 6	Fair
	11	SW	29·73	29 59	29 65	40	33	39	Rain Wind
	12	NW	30 06	30·	30 029	40	26	33·6	Fair
	13	N	30·08	29 8	29·832	36	28	32·3	Fair
	14	NW	29 82	29·76	29·785	35	29	32	Fair
	15	NW	29·82	29·82	29·82	34	27	31·3	Rain
	16	E	30 2	30·19	30·186	32	27	29·3	Rain
	17	E	30 23	30·22	30·227	33	30	28 6	Snow
●	18	E	30 1	30 05	30 063	32	29	28·3	Snow
	19	E	29·79	29 79	29 79	32	28	27·6	Snow
	20	E	29·95	29 83	29·87	32	24	26	Snow
	21	E	29·77	29 76	29 762	32	25	29	Snow
	22	NE	29·78	29 78	29 78	32	25	28 3	Snow
	23	NE	29 82	29·80	29 81	29	19	29	Fog
	24	NE	29·70	29·52	29 59	29	20	23	Fog & Snow
	25	NE	29·59	29 59	29 59	28	19	23·6	Fog

RESULTS.

Mean barometrical pressure of the month	29·6598	Mean temperature of the month	32·15 deg.
Maximum 30·38	wind at N	Maximum 49,	wind at E
Minimum 29·20	——— SE	Minimum 19,	——— NE

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
7	6	7	3	0	3	5	0

	Mean barometrical pressure.	Mean temperature.
From the full moon on the 26th Dec. to the last quarter on the 2d Jan.	29·681	36·78
——— last quarter on the 2d, to the new moon on the 10th	29 892	31·96
——— new moon on the 10th, to the first quarter on the 18th	29·911	32·83
——— first quarter on the 18th, to the full moon on the 25th	29·813	27·31

General

General Bill of Mortality, from Dec. 14, 1813, to Dec. 14, 1814, as delivered to the King by the Company of Parish Clerks.

DISEASES.		Head-ach	2	St. Vitus's Dance	1
Abortive & Stilborn	683	Headmoldshot, Horse-shoehead, & Water in the Head	421	Swelling	1
Abscess	71	Impostheme	3	Teeth	486
Aged	1774	Inflammation	1008	Thrush	68
Ague	2	Influenza	2	Tumor	4
Apoplexy & Suddenly	335	Jaundice	57	Tympany	1
Asthma	952	Jaw Locked	5	Water in the Chest	35
Bedridden	1	Lethargy	2	Worms	1
Bile	9	Livergrown	27		
Bleeding	29	Lunatic	223	CASUALTIES.	
Bursten & Rupture	23	Measles	817	Bit by mad Dogs	2
Cancer	81	Miscarriage	1	Broken Limbs	4
Chicken-pox	1	Mortification	234	Bruised	4
Childbed	216	Overgrown Head	1	Burnt	37
Colds	28	Palpitation of the Heart	6	Drowned	111
Colic, Gripes, &c.	21	Palsy	149	Excessive Drinking	10
Consumption	4829	Pleurisy	19	Executed	10
Convulsions	3418	Quinsy	6	Found Dead	24
Cough and Hooping Cough	864	Rash	1	Fractured	2
Cramp	1	Rheumatism	11	Frighted	3
Croup	85	Scurvy	8	Frozen	3
Diabetes	1	Shingles	1	Killed by a Stag	1
Dropsy	782	Small-pox	638	Killed by Falls & several other Accidents	83
Eaten by Lice	1	Sore Throat	6	Killed themselves	24
Evil	5	Sores and Ulcers	11	Murdered	3
Fevers of all kinds	908	Spasm	33	Overjoy	1
Fistula	5	St. Anthony's Fire	4	Poisoned	3
Flux	10	Stoppage in the Stomach	25	Scalded	6
French Pox	12	Surfeit	2	Shot	3
Gout	53			Smothered	1
Gravel, Stone, Strangury	12			Starved	1
Grief	1			Suffocated	11

Christened	Males 10313, Females 9857	In all 20170	
Buried	Males 10287, Females 9496	In all 19783	

Whereof have died,

Under Two Years of Age	5845	Seventy and Eighty	1343
Between Two and Five	2038	Eighty and Ninety	592
Five and Ten	770	Ninety and a Hundred	88
Ten and Twenty	649	A Hundred	1
Twenty and Thirty	1268	A Hundred and One	1
Thirty and Forty	1678	A Hundred and Two	1
Forty and Fifty	1950	A Hundred and Eight	1
Fifty and Sixty	1810	A Hundred and Eleven	1
Sixty and Seventy	1747		

Increased in the Burials this Year 2461.

There have been Executed in the City of London 17; of which Number 10 only have been reported to be Buried within the Bills of Mortality.

The increase of burials has been, it may be observed, principally from inflammation and fever. Small-pox continues to lessen. Consumption is somewhat increased, and its attendants asthma and croup,

croup, which may be attributed to the length and severity of the late winter.

The confined parts of the town appear still to be the most unhealthy. Within the walls of London, and in the ten parishes of Westminster, the burials exceed the christenings; whereas, in the seventeen parishes without the walls, and in the twenty-three out-parishes in Middlesex and Surry, the christenings exceed the burials very considerably.

REPORT OF DISEASES.

During the last two months, catarrhal complaints have been frequent, and the family of winter coughs numerous, and, in some cases, distressingly severe. The most frequent form of pulmonic affection in the Reporter's practice has been simple cough, cough with dyspnœa, with hoarseness, and with hæmoptoe. In some instances, the hoarseness has continued troublesome after the cough has ceased. This is strikingly exemplified in an African, aged fifty years, who left Jamaica whilst only eighteen years old, and has since been engaged as a musician in the army. He was affected with very severe cough, and occasionally spat blood, though in small quantity; his strength was much reduced, and he became extremely hoarse. The cough and hæmoptoe left him in the course of six weeks, under the use of an oily emulsion, with squills and digitalis; but the hoarseness continues intractable. His 'big manly voice,' for he was a strong man, has sunk into something smaller than 'childish treble.'—If any of the readers of these observations should have found a successful remedy for hoarseness, where the voice is reduced to a whisper after a cough, their imparting it, through the medium of our Journal, may be productive of benefit.—In another case of cough, in which hæmoptoe occurred in considerable quantity, the patient, an elderly thin man, getting rid of twelve ounces of blood at a time, sometimes as often as every six hours for two days together, relief was at first obtained by a draught of Infus. Rosæ, Magnes. Sulphat, and Tinct. Digitalis, every four or six hours, a blister being applied on the chest. But some days after the complaint was seemingly removed, the bleeding returned with such violence, as to threaten dissolution, when the following draught produced a speedy and most salutary effect.

℞. Plumbi Super-acet. gr. iij.
Infus. Digitalis, ℥j.
Tinct. Opii, gr. v. M. ft. haustus 6ta quaque hora sumendus.

Nausea and pain in the bowels occurred after the third draught, but the bleeding stopped, and the man is at this moment quite well, though probably doomed to another not very distant attack of his dangerous malady. In youth there is some chance for a man who has escaped from such a complaint, to become strong after it, and the disposition to the disease may be destroyed; but after the middle period of life, there is less hope for any such favourable change of constitution, and it becomes imperious that an individual thus unhappily circumstanced should be most careful in avoiding the exciting causes of the disease. In this affection, as in many others, no certain routine of practice can be laid down; it is a very common practice to take away blood, besides what the patient is pumping up. It will be gratifying to the writer of this article to obtain the opinion of some of his experienced brethren on this subject; also on the effects of emetics in hæmoptoe, as recommended by a German physician, whose name he at present forgets.

In

In the case of a girl aged fourteen, of slender make, and who has not menstruated, affected with *chorea* to a considerable degree, a fair trial has been given to active purgatives for two months, without the slightest alleviation of symptoms; but with manifest reduction of strength and flesh. This plan of treatment was enforced soon after the disease first appeared. For the last month it has been abandoned as hopeless, and steel and zinc have been taken, and the shower and cold bath used, but hitherto without effect.

Amongst the acute diseases which have lately occurred, were cases of cynanche tonsillaris, measles, and small-pox. In two bad cases of measles, one of which died, the mother affirms, that both the children had been affected with the complaint before. One of the cases of small-pox occurred in a boy aged fourteen, whose face exhibited one mass of scab, the disease being far advanced before a physician was called in. He recovered, contrary to expectation. The tide of plebian prejudice still sets strong against vaccination; and its cause is not aided by the ill-timed zeal of those of its advocates who go about, lancet in hand, almost compelling poor ignorant women to have their infants inoculated with cow-pock matter. The great work will proceed; but its progress will not be accelerated by beginning with the uninformed portion of our population.

In the Westminster Hospital, a very large Inguinal Aneurism has been the subject of an operation performed by Mr. WHITE. One ligature alone was used in the tying of the iliac artery. Mr. White, in this operation, avoided the division of the lower edges of the internal, oblique, and transversalis muscles, which mode of operation had, in two cases, left the parts divided so extremely weak, that a considerable hernial tumour was the consequence, which required for its support the constant application of a bandage. The fibres of these muscles were divided down to the peritoneum, at a distance from their lower transverse edges, and Mr. White had no difficulty in securing the artery. This operation, although performed on a very unhealthy patient, has been attended with unusual good results. The thermometer, placed in the ham of the limb the day subsequent to the tying of the vessel, was at 95, which was the temperature of the rest of the body. The man was enabled to walk, without the assistance of crutches, three weeks afterwards; and suffered, in a comparatively small degree, those irksome sensations of numbness, and want of motion in the extremity, which ordinarily have occurred in other cases.

An operation, we believe, new in the annals of surgery, has also been undertaken by Mr. WHITE, on a patient, at Cambridge. The history of this case, we have been told, is, that, from a blow received six years ago on the lower jaw, there had been, during that time, a slow accumulation of diseased structure: the eye was considerably protruded from its orbit, and the health of the patient had suffered very materially. Mr. White, from an examination of the parts, suspected the jaw to be dead from the symphisis to its articulation with the head, and undertook its entire removal. This was accomplished by dividing, with Hey's saws, the bone into three portions, after separating the external parts. Not a vessel was tied during the operation. The bone was entirely dead; and the patient, who, during many years, could barely separate the jaws to admit even a spoon with his food, can now receive and masticate, with the remaining under half, solid animal and other nutriment without the least difficulty. This patient, we have also been informed, had not slept in a horizontal position for the last five years, the accumulation of the secretions from the diseased parts producing, when recumbent, so much irritation in the parts about the throat, as to threaten suffocation. Since the operation, all this distress has ceased, the face has acquired its original size, and the general health of the patient has been established. We trust Mr. White will give us an ample detail of the history of this disease, and its treatment.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

THE Physiognomical System of Drs. Gall and Spurzheim, founded on an Anatomical and Physiological Examination of the Nervous System in general, and of the Brain in particular, and indicating the Dispositions and Manifestations of the Mind. By J. G. Spurzheim, M.D. Illustrated with nineteen copper plates. Royal 8vo.—Baldwin and Co.

Delineations of the Cutaneous Diseases comprised in the Classification of the late Dr. Willan: being a re-publication of the greater part of the Engravings of that Author, in an improved State, together with a new Series, which will comprehend the remainder of the System, as completed in the Practical Synopsis of Dr. Bateman; the whole being intended to illustrate the principal Genera and Species described in that Work. By T. Bateman, M.D. F.L.S. Fasciculus 1st. 4to.—Longman and Co.

Observations on the Animal Economy. By a Physician.—Callow.

An Illustration of Mr. Hunter's Doctrine, particularly concerning the Life of the Blood, in Answer to the Edinburgh Review of Mr. Abernethy's Lectures. By Joseph Adams, M.D. 8vo. Callow.

The Case of Joanna Southcott, as far as it came under his Professional Observation, impartially stated. By P. Mathias.—Callow.

The Surgeon's Vade-Mecum, containing the Symptoms, Causes, Diagnosis, Prognosis, and Treatment, of Surgical Diseases, accompanied by Engravings, to illustrate the modern and approved Methods of Operating; also, select Formula of Prescriptions, and a Glossary of Terms. 12mo.—Longman and Co.

The Art of Preserving the Sight unimpaired to an extreme Old Age, and of re-establishing and strengthening it when it becomes Weak; to which are added, Observations on the Inconveniences and Dangers arising from the use of common Spectacles, &c. &c. By an experienced Oculist. Second edition. 12mo.—Colburn.

The Institutions of Physiology, translated from the Latin of Professor Blumenbach, with additional Notes, illustrative and emendatory. 8vo. boards.—Cox and Son.

A Bill for Enlarging the Charter of the Society of Apothecaries in the City of London, granted by his Majesty King James the First, and for better Regulating the Practice of Apothecaries throughout England and Wales. 8vo. sewed.—Callow.

Anatomical Plates of the Bones and Muscles, diminished, from Albinus, for the use of Students in Anatomy and Artists, accompanied with explanatory Maps. By Robert Hooper, M.D. A new Edition, in 12mo.—Callow.

Anatomical Plates of the Thoracic and Abdominal Viscera, for the use of Students in Anatomy and Artists, accompanied by explanatory Maps. By R. Hooper, M.D. A new ed. 12mo.—Callow.

TO CORRESPONDENTS.

We regret that Mr. Stephenson's Communication arrived too late for the present month. We have also been favoured, as usual, with several Articles, which want of room, and the lateness with which some of them were received, have occasioned us to defer till a future Number. Among them are Communications from Drs. Clarke, Robertson; Messrs. Hey, Bush, Walker, Rowe, Machell, &c. &c.

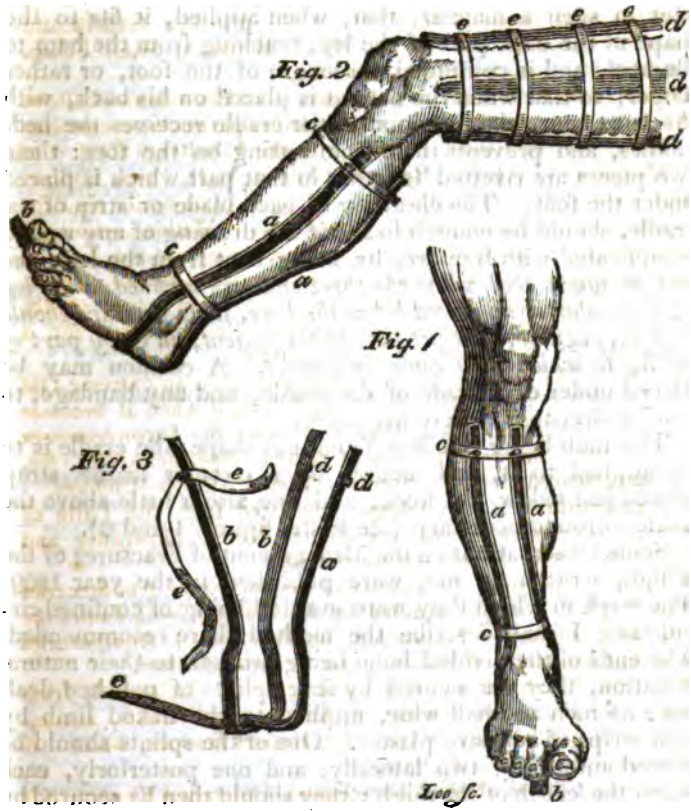
THE

Medical and Physical Journal.

3 OF VOL. XXXIII.] MARCH, 1815. [NO. 193.

For the Medical and Physical Journal.

Remarks on Fractures of the Extremities, with the Description of an Elastic Iron Cradle for Fractures of the Leg; by FRANCIS BUSH, Surgeon.



AS the result of many practical trials, I feel confidence in recommending the method now suggested of confining fractures of the extremities, especially those of the leg and thigh, as better calculated to prevent deformity of the parts injured: at the same time it occasions less pain to the patient than

than any hitherto taught in the schools of surgery, or by writers on that subject.

I might never have paid so much attention to the treatment of such case, but for an accident which occurred on my own person. A horse having tumbled with me and fractured my leg, rendered the method of confining the bones, with the greatest certainty and ease, a matter peculiarly interesting to me; and led to the use of the Elastic Iron Cradle (see Plate, fig. 3d). It is formed by two pieces of thin hoop iron, from half an inch to an inch wide; one of them is bent like a stirrup under the foot, and over each ankle, reaching up to the knee on both sides; the other is bent in such a manner, that, when applied, it fits to the shape of the back part of the leg, reaching from the ham to the heel, and is continued the length of the foot, or rather longer, so that when the patient is placed on his back, with the knee bent, the foot joint of the cradle receives the bedclothes, and prevents them from resting on the toes: these two pieces are rivetted together in that part which is placed under the foot. The elasticity of each blade or strip of the cradle, should be enough to admit the dressing of any wound complicated with fracture, by being bent from the leg, *and just so much that when the three ends are confined to the leg by a circular strap placed below the knee, their pressure should be firm, regular, and yet easy to the patient, on every part of the leg to which they come in contact.* A cushion may be placed under each blade of the cradle, and any bandage, to confine dressings, where necessary.

The limb being put into its natural shape, the cradle is to be applied to it, and secured by a circular leather strap placed just below the knee, and one also a little above the ankle, if found necessary (see Plate, figures 1 and 2).

Some Observations on the Management of Fractures of the Thigh, written by me, were published in the year 1809. The work in which they were inserted being of confined circulation, I shall describe the method there recommended. The ends of the divided bone being brought to their natural situation, they are secured by four splints of polished deal, each an inch and half wide, applied to the naked limb by four strips of adhesive plaster. One of the splints should be placed anteriorly, two laterally, and one posteriorly, each being the length of the thigh; they should then be secured by four bands of adhesive plaster, placed at convenient distances (see plate, fig. 2); the bands may be loosened or tightened, as may be necessary. I have treated many cases in this manner, where the swelling has not required their being loosened or removed during the cure. The patient

should be placed on his back, with the knee bent, in cases of fractured thighs and legs.

In fractures of the upper and lower arm, I use splints similar to those for the thigh, which are likewise confined by strips of adhesive plaster.

Injuries of this kind near the joints will sometimes be productive of stiffness, but, by a proper application of the means I have detailed, a distorted limb from a fracture will be a rare occurrence. This cradle will be a very convenient instrument on ship-board, and where it is necessary to remove the patient to a distance from where the accident happens.

Explanation of the Plates.

Fig 1.—A front view of a leg placed in the elastic iron cradle, secured by two circular straps. *a, a.* The two side blades of the cradle. *b.* The toe point of the hind blade. *c, c.* Circular straps.

Fig. 2.—A side view of a leg placed in the elastic cradle, with the straps secured. *a, a.* The back and side blades. *b.* The toe point of the back blade. *d, d, d.* Three of the deal splints applied to a fractured thigh, secured by four adhesive circular bands, *e, e, e, e.*

Fig. 3.—The elastic iron cradle when off the leg. *a.* Hind blade. *b, b.* Side blades. *c.* Toe point. *d, d.* Studs to fix the strap. *e, e.* The strap.

Frome, Dec. 30, 1814. FRANCIS BUSH.

For the Medical and Physical Journal.

Three Cases of Pulmonic Inflammation, illustrative of Observations on Peripneumony, inserted in the Medical and Physical Journal for November, 1814. By W. ROBERTSON, M.D. A.O.L. and C.C.E.

"Oportet itaque, ubi aliquid non respondit, non tanti putare authorem, quanti ægrum, et experiri aliud atque aliud."—CELSUS.

"La verité, et la raison sont communes à chacun, et ne sont pas plus a qui les a dites premierement, qu'à celui qui les a dites après."—MONTAIGNE.

IN some of the diseases of the order Phlegmasiæ, the general depletory system, so universally and judiciously inculcated, seems in many instances to have little influence in subduing the morbidly increased action of the viscus inflamed, though assisted by the collateral and potent adjuvants of topical subtraction of blood, counter irritation of cantharides, and rigid observance of all the parts of the antiphlogistic regimen. Even when the general reaction of the system, occasioned by, or attendant on, the local inflammation, has been overcome by the means above enumerated,

still the disease of the particular viscus often proceeds to a fatal termination, with as much certainty and celerity as if no remedies had been exhibited. If this be true, which painful experience has, we have no doubt, taught every physician, it must be apparent, that the doctrine of the extreme vessels being possessed of an action *sui generis* independent of their parent source,* and not amenable to its laws, in some diseases at least, if not in health also, is consonant to some of the phenomena attendant on inflammation. Ought we not to a certain amount to adjust our prognosis, and regulate our curative measures, from a knowledge of this circumstance? The frequent occurrence of visceral adhesions, effusions, suppurations, and tumors, demonstrated on dissection, and which were not only undiscovered during life, but absolutely unattended by any fever or apparent reaction of the vascular system, seems to promise validity to these speculations. However this may be, the circumstance is indubitable that visceral inflammation often proceeds to a fatal termination independent of the depletory remedies of the physician. In consequence of disappointment and failure from the usual remedies, we have found it expedient to have recourse to other means to combat the secondary symptoms of visceral inflammation, whether as the concomitant or product of general phlogistic excitement, or, as the attendant or offspring of febrile pyrexia; and these, in very many instances, we have experienced to be adequate to the task, and commensurate with our most anxious feelings, though, doubtless, subject, like every human effort in the cause of mortality, to that uncertainty which, from the beginning, has been impressed on man himself.† We shall not enter here

* See Cullen's first lines, vol. I. page 270. See also, Morgagni, Epist. xxi. Boneti Sepulchret. tom. i. p. 508; and more particularly Diemenbroëk. Anatom. lib. ii. cap. 13, p. 308, as quoted by Van Swieten, vol. 8, p. 261. In which a case is related of the lungs being found after death, not only adhering to each side, "but likewise grew so firm to the mediastinum and diaphragm, that they could not be separated from thence without laceration, yet the man had *lived in health without any difficulty of respiration.*"

† I am unconscious of wishing to detract from the merit of others. Dr. Hamilton, of Lynn Regis, (in Duncan's Medical Commentaries) some years ago recommended similar remedies nearly to those which we now inculcate, though in different stages of the same diseases; and Dr. Yates, of London, has given an excellent paper on this subject in the Annals of Medicine, vol. ii. hist. 2d.

on

on the theory of inflammation, whether it is to be considered as a state of increased action of the vessels, as maintained by most of the ancient and modern physicians down to a comparatively late era; an obstruction and lentor in the minute vessels;* a spastic strieture with inordinate action in these;† or whether it consist in a diminished action in the same vessels as adduced by some moderns.‡ This subject is, doubtless, worthy of rigid investigation, (and, on this head, we refer to the authors enumerated in the foot note;) but our object at present is more a practical one, " neque quærendum esse, quomodo spiremus; sed quid gravem tardumque spiritum expediat.§

In regard also to the order Febres, we are convinced, both from long and repeated observations, and from reiterated dissections, that local inflamtnations, congestions, and effusions in viscera most essential to life, have frequently existed where no such occurrences were suspected, and which were the immediate cause of the subsequent fatality; particularly in warm climates, where we have had frequent opportunities of witnessing such events. The late depletory system of treating these maladies, which has proved so efficient, bears me out in some degree in these assertions. But I hope to enter more fully, at some future period, on this subject, and to be able to elucidate certain practical points relative to the use of mercury and the proper period for its exhibition in the remittent fevers and some other diseases, as they appear in warm countries; a discussion which has not a little agitated, by the discrepancy of sentiments adduced, the medical world, and called into existence, a degree of animosity of feeling, and virulence of expression, which have by no means tended to enforce conviction, dissipate doubt, or induce unity of opinion. In regard to the modus operandi of mercury in the cure of the secondary stages of venereal inflammation, we have little to adduce; though this, in most instances, might readily be assigned, when mercury is considered as a direct stimulant, affecting every sensible and moving fibre, by the induction of permanent excitement of the living system; as an indirect and general evacuant, en-

* Vide Boerhaave and his commentators, Gaub. Pathol, 249, I.

† See Cullen's first lines, vol. i. p. 279.

‡ See a paper in the Edinburgh Medical and Surgical Journal, No. 15, 1765, in which Professor Berlinghien, of Pisa, has brought forward this theory. See a System of Surgery by Mr. Latta, vol. i. p. 99; also, a Treatise on Febrile Diseases, and an Essay on Fever, by Dr. Wilson, of Worcester.

§ Celsus de Med. Præf. p. 2.

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tering into the circulating medium and pervading every part of the animal body, and finally as a powerful, though not generally acknowledged, tonic. I have only further to observe, that it appears to me, that the introduction of this metal into the system has a peculiar efficacy, in rendering the circulation uniform throughout the body, and, in consequence, in preventing and removing morbid determinations of blood to particular organs; while all this may be effected under due regulation, without much acceleration of the pulse. If this doctrine be well founded, mercury must unquestionably be considered as one of the most powerful agents in the physician's possession for combating the diseases we have been treating of.

Case I. March 2, 1814.—I was requested to visit Mr. ——, æt. 47, whom I found in the erect posture,* labouring under great difficulty of breathing, much aggravated by an incessant cough and pain between the 7th and 8th ribs, attended by a sense of weight, oppression, and increased heat in the whole of the right side, extending occasionally under the breast bone. The cough is accompanied with a copious expectoration of bloody sputa, excreted without much difficulty. Any attempt at a full inspiration, does not seem to aggravate the pain, but evidently induces such an alarming sense of suffocation, as to prohibit any considerable effort for the purpose, though his frequent abortive endeavours shew his solicitude to accomplish the full elevation of the ribs. He cannot lie on the affected side, reclining generally on his back when in bed, but feels no inclination till nearly exhausted from fatigue, to desist from the erect posture. The face is considerably swollen and puffy in its appearance, while the forehead is bedewed with an unctuous moisture. The eyes are heavy and denote much uneasiness, suspicion, and anxiety; the cheeks and lips strongly indicate the probable condition of the lungs, they are purple, inflated, and glazed; in some places, spotted with alternations of purple and a dirty yellow, while the neck, which he sedulously preserves uncovered, is altogether of a dingy ochreous hue. The frequent motions of the alæ nasi, which yet always appear distended, and the constant elevation of the points of the shoulders, conjoined to a rapid and anxious utterance, when interrogated, complete the external symptoms of a pectoral disease. His pulse is 108, regular, but feeble; tongue white, though moist towards the

* Vide Aretæus, de Causis et Signis Morb. Acut. p. 10, 11; et Hippocrates, in Prognosticis, p. 603.

edges,

edges, and is tremulous when extended; urine deficient in quantity and high coloured; belly costive; appetite quite gone, and he says he frequently vomits the food he may have been induced to swallow. Thirst urgent; skin hot, but irregularly so, for on the head and neck there is a partial moisture, while the palms of the hands and soles of the feet are hot and dry. The body has suffered considerable emaciation.

These complaints commenced ten days ago, with alternations of cold and hot fits, frequent flushings of the face, and other symptoms of pyrexia; these were succeeded by pain in the side, cough, and difficulty of breathing; all of which he attributes to exposure to cold after being much heated. He was blooded on the third day of the disease, which produced some remission of his complaints, but they soon after recurred, and have gradually assumed their present aggravated form. Applicetur lateri quâ dolet, Emplastrum epispasticum satis amplum. Injiciatur Enema domesticum vesperi. Bibat decoctum hordei ad libitum, et sumat semunciam misturæ sequentis, ungenti tussi:

℞. Mucilaginis Acaciæ ʒifs.
Aquæ Cinnamomi ʒv:
Syrupi Croci ʒi. Misce.

3d. Blister has risen well, had one motion from the enema. Pulse 104 and small, but regular. Much dyspnœa amounting almost to orthopnœa, and expectoration of viscid matter tinged with blood. Countenance very livid, and lips of a venous colour. Had much distressing cough in the night, and the head seems not quite clear this morning. Rep. Enema vesperi, si opus sit.

℞. Submuriatis Hydrargyri, Pulveris Antimonialis āā gr. iij. Opij gr. 1.
Conservæ Rosæ q. s. fiat Bolus.
Sumat statim et repetatur hora somni.
Fiat fonticulus ex parte vesicata ope unguenti Pulveris Cantharidum.
Continuatur Mistura Mucilaginosa & Habeat Vini Rubri ʒiv. Partitis vicibus sumendas.

4th. Dyspnœa and cough considerably relieved; skin moist, and heat moderate. Has had two stools; enema not given; pulse 100, soft and regular; tongue moist and cleaner; complains excessively of pain from the issue. Applicetur Cataplasma ex mica panis fonticulo. Repetatur Bolus, horâ somni. Continuentur Mistura & Vinum.

5th. Cough and breathing much easier, though the latter is far from being perfect. Pain of side cannot be distinguished from the pain of the issue, which, however, is better since the

the application of the poultice. Head clear, and he talks with more composure; slept for some hours after taking the bolus, and awoke covered with perspiration. Pulse 96, soft and regular; much expectoration tinged with blood; countenance less livid, and the skin of the neck has in some degree lost its dirty hue. Injiciatur Enema domesticum vesperi. Continuentur Medicamenta.

6th. Breathing and cough and pain of side much relieved; a copious stool from the injections; face and lips much improved in colour; pulse 96; tongue moist, though not clean; heat moderate; urine of natural colour and rendered in greater quantity; expectoration still very copious. Omittatur bolus. Continuentur alia.

℞. Liquoris Ammoniæ Acetatis ʒiij.
Misturæ Camphoræ ʒxij.
Liquoris Antimonii Tartarisati gtt. xx.
Syrupi Croci ʒi. fiat haustus 4tis horis sumendus.

7th. Is much better in every respect; pulse 100; belly regular. Continuentur Medicamenta & Vinum.

8th. Has suffered much in the night from severe fits of coughing; expectoration much diminished; pulse 108; skin dry and communicates a sense of pungent heat to the hand. Continuentur Medicamenta, & hora septima vespertina, sumat Pulveris Ipecacuanhæ ℈i. pro emetico.

9th. Vomit operated well; skin in a perspirable state; much bloody sputum excreted. Intermittatur Vinum; continuentur alia. To have milk diet.

Note.—From this period till the 15th, when the patient was convalescent, the usual remedies were administered, and with the exception of occasional slight returns of febrile action, (dissipated by emetics and diaphoretics,) nothing worth noting occurred.

Observations.—This is evidently a case of Peripneumony and at the period of the Reporter's being consulted was too far advanced to admit of bleeding; for, when any effusion has taken place, (and this event, to a certain extent, more frequently occurs, I suspect, in the low passive inflammation of peripneumony, than is generally imagined,) venesection debilitates the patient without procuring any alleviation of the symptoms, at least any alleviation commensurate with the debility induced. Moreover, when expectoration has taken place, and which is often critical, it is very generally repressed by the detraction of blood. Blisters in these cases are most estimable remedies, and are adapted both to the conditions of inflammation and effusion; they seem to operate not only by derivation, but by increasing the action of

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one set of vessels, and thus producing a diminution in that of others, and besides they are powerful antispasmodics. But at this period of the disease, I consider the introduction of mercury into the system, combined with opium, and occasionally antimony, as the most certain mode of cure we are acquainted with. It is particularly to be noted, however, (as happened in this case,) that the sudden subtraction of the mercurial treatment almost certainly induces a relapse or renewal of the dangerous symptoms, a circumstance I shall have occasion more particularly to illustrate in a subsequent case.* By referring to the report of the 8th, it will be seen, that very considerable febrile excitement, with an increase of heat and dryness of skin, occurred subsequently to the abstraction of the mercurial treatment, and this augmentation of temperature was probably attended by so considerable a spasm on the capillaries of the surface as to preclude the excretion of perspirable matter, and, in consequence, to aggravate the disease by repressing the determination from the centre.† After the discontinuance of the mercury in this case, it appeared advisable to produce a farther determination from the viscera, by means of diaphoretics, which in this instance was successful; but they cannot always be depended on, and are highly debilitating. An emetic very generally affords relief, when the expectoration from any cause is suddenly repressed, and was accordingly administered in this case with much advantage. Had, however, the mercurial treatment been continued, I feel little hesitation in asserting, that the disease would have been subdued in a much shorter period, the danger from effusion decreased if not totally dissipated, and an uniform action throughout the system permanently established. Though I conceive that this point will readily be conceded, yet it must be acknowledged, that in pulmonic diseases attended with little danger, the advantages which are likely to accrue from the mercurial action, will not be commensurate with the inconveniences which are to result from, and are necessarily attendant on, the induction of a permanent excitement from this remedy, and that in these cases, therefore, the usual means should be confided in, as

* See a case detailed by Dr. Yates, formerly of Bedford, now of London, Annals of Medicine for 1802, p. 397.

† It is well known, when the heat of the body rises above a certain point, (say 105°) that the capillaries of the surface are powerfully constricted; and, on the contrary, when the reaction is moderate, the orifices of the skin often relax and carry off the febrile heat by perspiration. See Dr. Currie's Medical Reports, p. 160.

adequate to the removal of the disease; but in such lamentable cases as I am about to detail, the exhibition of mercury and opium, with the occasional addition of antimony, and the free use of diffusible stimuli appear to be the most estimable remedies in the possession of the physician, and the most likely to deliver the oppressed and toil-worn patient from the dominion of an almost intractable disease.

The two following cases will be given in the next Number.

Berwick-on-Tweed, W. ROBERTSON.
Dec. 28, 1814.

For the Medical and Physical Journal.

Remarks on Mr. Bellingham's Case of Hydrophobia, with Arguments in favour of Bleeding in that Disease; by Mr. T. KEY.

FEW diseases have resisted the various endeavours for their cure more than Hydrophobia, and we must, perhaps, wait the event of future research, by dissection, before confidence can be acquired in the remedies to be employed in that formidable complaint. We should, then, with our present limited knowlege, not hastily reject a mode of treatment which, hitherto, appears to have been the most successful. Mr. Bellingham, in the last Number of the Medical and Physical Journal, has related a case which he considers as an individual instance militating against the practice recommended by Dr. Schoolbred. The fatal termination may seem to favour the opinion. The most questionable part of the treatment of that case, is the omission of another copious bleeding at Mr. Bellingham's second visit, an evacuation then as imperiously required as the one he so judiciously procured when he first saw the child. Accelerated arterial action was, by his own statement, proceeding with increased power. The omission of the injections appears to have been the neglect of those who were directed to administer them; it is, however, to be regretted that they were so unfortunately protracted, as, when procured, even in an advanced stage of the disease, each produced its respective relief. I cannot, therefore, admit "that depletion had the fullest and the fairest trial."

Without presuming to discuss the intricate question as to the modus operandi of the hydrophobic poison, from the period of its insertion to that of its visible action on the system, it must be admitted that hydrophobia is a disease of more than ordinary excitement; nor, without assuming the existence of some morbid affection of the brain as the primary cause, can any reasoning illustrate the source of the symptoms,

symptoms, or the rapidity with which it proceeds to its termination; and, from the manner in which the functions of that organ appear to be deranged, it is scarcely to be disputed that the morbid affection is inflammation; if so, success in the treatment can only be presumed by depletion, actively and judiciously induced, and permanently secured. The most preferable mode of effecting it must be decided by the practitioner; he should, however, be aware, that, as the period allotted for his exertions is so limited, no portion of it should be misemployed. As to blood-letting, if any general rule will apply, it must be that of pursuing it *ad deliquium;* no given quantity of blood to be taken away can be specified, for, as may be seen by a reference to Mr. Bellingham's case, when, though he took away eleven ounces of blood at the first bleeding, a copious quantity for a child of three years and a half old to lose at one operation, yet, in a very few hours, it was again required. Next to bleeding is the evacuation by the bowels, and should be as rigidly enforced. The remedies usually understood as antispasmodics, and too often employed when convulsions prevail, are in hydrophobia injurious; most of them tend to increase the vascular action of the brain, and all interfere with the alvine evacuations.

Having assumed the opinion that the primary affection in hydrophobia is inflammation of the brain, I deem it irrelevant to go into the inquiry as to its identity with gastritis, or any similar affection; they are secondary, and only mark the progress of the disease. The remarks I have made on Mr. Bellingham's case were unavoidable: at variance with his inference, I may be excused for having availed myself of what was necessary to defend my own; nor are they made with any other view than to support a practice which I do not conceive the unfortunate termination of his case to militate against.

Fenchurch-street; THOMAS KEY.
Jan. 18, 1815.

For the Medical and Physical Journal.

On Dr. Brenan's Terebinthinate Remedy in Puerperal Fever; by Dr. KINGLAKE.

THE practical reports lately given to the medical world by Dr. Brenan on the astonishing efficacy of spirit of turpentine in the cure of puerperal fever, deserve close and critical attention.* No description of disease is, perhaps, so insidious in its approach, so deceptious in its progress, and

* See Med. and Phys. Journal for Nov. 1814, p. 403.

so unexpectedly mortal, as puerperal affections. After the alarms and difficulties attending parturition have subsided, and the most happy assurances are apparently afforded of a favourable issue, pains of no threatening violence in the uterine region, extending to the general cavity of the abdomen, announce the occurrence of a very formidable complaint, which, if not speedily repressed and overcome, but too commonly proves destructive.

That the character of the disease is at the onset inflammatory, and that in this form, if not timely checked, it lays the ground of irrecoverable mischief, is, it may be presumed, undeniable; but it is obvious, that, in a disease forming and developing itself under so much disguise and ambiguity as is known to be the case in puerperal affection, no opportunity is afforded for snatching the menaced victim from the impending danger. The mortal stage is often unhappily attained before effectual aid could have been applied, and, under such circumstances, the patient is unexpectedly cut off.

Whether this disease be induced by a morbid irritability of the uterine system, propagating itself to the peritoneal covering of the contents of the abdomen, or from mismanagement either before, at the time, or after the period of parturition, the character and consequence of the disease would be in principle the same. Inordinate action, bordering on, or actually amounting to, a state of inflammation, constitutes the uniform and dangerous nature of the disease. Its seat being in the membranous structure, occasions it to assume more of the erysipelatous than phlegmonous kind of inflammatory excitement; hence, the comparative slightness of pain, and the rapidity with which it becomes indefinitely diffused over the membranous structure of the abdominal cavity. Dangerous and untractable as this disease is when suffered to proceed, it may in its early stage be generally restrained and overcome by copious bleeding and extensive blistering over the region of the abdomen. This mode of remedy is the most efficient in subduing inflammatory affections of the cavities, and evinces, from its commonly availing in puerperal affection, that the disease is essentially inflammatory. But, when the complaint has proceeded long enough to have exhausted the vital power of the affected vessels to a degree but little short of the state of death, gangrene must be near at hand, and, indeed, most commonly occurs, bringing with it inevitable destruction.

This seems to be the condition of disease in which Dr. Brenan has successfully employed Spirit of Turpentine. It will not be contended that a part actually dead can be restored to life, but it is possible that the dying state may be prevented

prevented from reaching its mortal termination; and the question is, whether the high stimulus of turpentine is peculiarly equal to this wonderful effect. Two opinions cannot be held on the fact, that, in the greater number of Dr. Brenan's reports of the efficacy of his remedy, death must necessarily have been the result, but for the extraordinary efficacy of his terebinthinate remedy.

The salutary influence of turpentine in the griping affection of horses, is immediate and most effectual. Within ten minutes after taking an adequate dose of this article, the animal will stale copiously, and be completely relieved. Large quantities of turpentine may be taken with impunity. In a case of tænia, it was given under my direction to the extent of six drams a day during several weeks, and without any other inconvenience than that of passing an unnatural quantity of urine, and the insensible perspiration becoming strongly impregnated with its peculiar odour. No material advantage arose from it in dislodging the supposed tænia. It has been not only the established practice from remote antiquity down to the present time, but is the obvious suggestion of common sense, to endeavour to sustain the sinking state from exhaustion, however the loss of power may have been induced, whether by excessive or deficient excitement. The close of inflammatory diseases is, therefore, treated with stimulant remedies; but they are in general resorted to after gangrene has actually taken place, and death has consequently become inevitable. The peculiarly active and diffusible powers of turpentine, may, perhaps, render it a more effectual stimulant in cases verging on gangrene, such as are apt to present in puerperal disease, than any other that could be employed. Should this be the case, it will be entitled to decided preference. The extent to which it has been given by Dr. Brenan, is probably the main circumstance of its efficacy. In limited and fearful doses, it would, probably, achieve nothing, whilst in *half-ounce* doses, it might prove salutarily efficient. It will be vindicable to try what may be accomplished by it in those cases in which it is affirmed to have succeeded, and in which no known mode of remedy would be likely to avail.

How far it would be adviseable to employ the remedy at an early stage of the disease, unpreceded by bleeding, blistering, and intestinal discharges, is a subject for grave consideration. It would appear to me, that in that active stage of the disease it would be much less likely to prove salutary than in the more advanced progress, when the enfeebled remains of life might have nearly reached the point of mortal exhaustion. Should this remedy, on adequate trial, be found to be effectual

tual in the sinking stage of puerperal affection, the pathological analogies which the fact is calculated to unfold, may be made available to most important objects in the general treatment of disease. The practice of medicine is yet lamentably imperfect. Boasted remedies are on trial ascertained to be very defective, and some of the accredited principles by which they are authorised and kept in vogue, will, perhaps, be found not to be unassailably correct.

Taunton; ROBERT KINGLAKE.
Jan. 15, 1815.

For the Medical and Physical Journal.

Corollaries from a Treatise on the Cerebellum and different Parts of the Brain in Epileptics; by Professor WENZEL and his BROTHER.

IF, in closing this collection of observations, I allow myself to present some general hints, I desire they may be considered only as questions. I do not pretend to give them as incontrovertible principles in the investigation of epilepsy.

The observations which precede, perhaps, will give to some of my remarks the rare merit of entire certainty. Some of them, without doubt, will induce us to restrict ourselves a little more in the employment of remedies, and to try a more simple, and, of course, a more perfect, practice; the others will be, perhaps, of some utility in silencing the complaints which arise in consequence of the insufficiency of anatomy to elucidate the causes of the disease.

I have made these remarks because they appear to me to be true, without pretending to offer them as rules of practice. I shall receive with gratitude objections and ingenious criticisms brought against my conjectures.

I shall now consider successively all the parts of the cranium of which the author has thought it important to examine the lesions, and shall omit all those which are not directly in point.

1. The body of the base of the cranium appears in a physiological view, and more particularly in a pathological one, to merit careful research, with a view to know the state of the cerebellum.

2. There are, in this part of the bone, certain changes which ought to be considered as pathological signs, and which appear to have an essential influence on the cerebellum.

3. These changes consist either in malconformation of insulated parts, or in defect of parts in connection with them. Or the whole of the base of the cranium is affected by those malconformations.

malconformations. All these different changes may be of great importance with regard to the cerebellum.

4. It is, perhaps, in this deformity of the base of the cranium, which presses on the cerebellum, that the seat and the cause of epilepsy are found.

5. The effusion of lymph between the cranium and the dura mater, and between the folds of this membrane, occurs only in by far the smaller number of cases in which the cerebellum presents these morbid appearances.

6. All the changes in the convolutions of the brain, even those which have been most uniformly remarked, do not appear under any view to be necessary causes of epilepsy.

7. The softness or excessive hardness of the brain, the changes in the colour of the substances which compose it, cannot any longer be considered as causes of the disease.

8. We can say as much of the collection of water in the lateral ventricles, and if it be found in the bodies of epileptics, we must examine with care whether it is not rather the consequence of severe and reiterated attacks, especially in young subjects.

9. The changes which we see in the *corpora striata*, the *thalami nervorum opticorum*, and the *tubercula quadrigemina* are alike accidental, and foreign to the causes of idiopathic epilepsy.

10. The brain, at least in the greatest proportion of cases, does not exhibit any change which can be considered as an universal cause of idiopathic epilepsy.

11. The morbid state of any part of the brain appears to be rather the consequence than the cause of the general or partial convulsions. On the contrary, idiopathic epilepsy seems to have as a constant principle a morbid affection of one and always the same part.

12. The disproportion between the pineal gland and the cerebellum, and which manifests itself principally in the organic lesions of these two parts, is a point well established, according to the observations of the author.

13. It is uncertain if the morbid lesions which are discovered in the pineal gland of epileptics, are the cause or the effect of the diseases of the cerebellum: the last hypothesis is the most probable.

14. The circumstance that the pineal gland and the cerebellum are sometimes affected together, sometimes separately, depends, perhaps, more or less on the strength and energy of the cause which acts at the same time on these organs.

15. The cerebellum has been found affected in all epileptics.

16. There has almost always been discovered an effusion

of lymph, more or less hard, at the point where the two lobes of the cerebellum join.

17. When this effusion, and the change which results from it, have not taken place, there is found a lesion of the superior surface of this part.

18. The cerebellum has been diseased, when all the other parts of the brain, the pineal gland excepted, has not discovered any sign of disease.

19. The most trifling changes of this part, not remarked until now, appear to have the most serious effect upon the animal economy.

20. The cerebellum appears to be, in the human body, a part more interesting than is commonly imagined.

21. It is probable, and I may say certain, that it is an engorgement of blood produced by an irritation, or an inflammatory congestion, which occasions *that collection of lymph in the brain* which we have mentioned.

22. According to the observations we have made on other parts of the bodies of animals where similar effusions are discovered, it is certain that this fluid, when it is not absorbed, undergoes by degrees all those changes which we have always remarked in similar effusions. These offer the same results that have been found in the cerebellum of epileptics.

23. Will it be granted, upon the whole, that these morbid appearances observed in the interior of the cerebellum are the cause of epilepsy? or rather only a particular class of them?

24. Will it be admitted that the epileptic attacks are the lightest, most rare, and most curable, in those cases where the morbid affections of the cerebellum are in a less degree, as in the case where there has been no effusion of lymph, or where it has been taken up by the absorbent vessels?

25. If we consider a state near to inflammation, or a real inflammation of the cerebellum and of the neighbouring parts, and the consequences of this inflammation as a cause of idiopathic epilepsy, of what efficacy are verdigrise, galls, ether, ivy, anise, antimony, assafœtida, arsenic, orange leaves, matlincon, oil of box tree, hazel tree, camphor, copper, castor, cinnabar, digitalis purpurea, glands of oaks, aromatic plasters to the head, henbane, bullock's gall, benzoin, iron, cinnamon, Venice soap, mercury, dragon's wort, tin, white vitriol, musk, figs, opium, phosphorus, hellebore, spiritus cornu cervi, gratiola, sulphur, hyssop, wood lice, flowers of zinc, rhubarb, realgar, St. Ignatius' bean, sweet marjorum, yellow amber, mutton cutlets, common salt, oil of anise, wine of rue, castration, and the butter of antimony? I ask, of what benefit were so many other ridiculous remedies

which

which have been recommended, such as the hoofs and horns of the elk, amulets, the flesh of the wolf, the gall of the tortoise, pulverized human teeth, a piece of silver money swallowed, the bones of the head of a horse, dog's gall, the brain of a quail rubbed on the face, the brain of a man and of a camel, a piece of the skin of a wolf, the liver of an otter, the blood of a wolf, the gall of a bear, the horn and hoof of an ass, the ashes of the mole and rabbit, the heart of the hare or the elephant, the liver of the frog, powdered placenta, the testicles of the fox, and of the ram, powdered mice, human blood, and particularly of a martyr, human excrement, the testicles of an ass, the fat of a hare, swine's snout, &c. &c. &c.?

26. Is not the inconsiderate use of these remedies, some of which may appear reasonable, but others extravagant, equally dangerous.

27. Do not incipient epilepsies demand, above all other remedies, those which have been recommended by the most respectable physicians, and which are termed antiphlogistic, particularly local and general blood-letting?

28. Are not irritating remedies dangerous, at least when the disease begins to discover itself? Do not terrible inconveniences result from them?

29. What can be expected from irritating applications to the occiput, or to the surrounding parts?

30. What can be expected in this disease, when inveterate and obstinate, from cauterising the head or neighbouring parts, which De Haen recommended, and Pouteau has again brought into vogue, and which Mandan employed with success? There is no need of repeating, that we do not treat in this place of cauterising the bones of the cranium which De Haen practised, and at first Pouteau himself, but of the integuments of the head only.

31. Should not the treatment of epilepsy, besides an examination the most exact of the nature of all the attacks since their first appearance, be preceded by serious considerations of the age, natural constitution, and the character of all the preceding diseases, of the subject?

32. Are there no epilepsies susceptible of cure but those which have for their origin the morbid affections of other parts of the body, whilst those which have their cause in the lesion of the cerebellum are, perhaps, incurable?

33. Does not constant and well-authenticated experience teach us at what period of the disease the means of our art may be best employed; and at what period the curative means may be more injurious than useful, and at the same time hazardous to the life of the patient?

34. Does not an ill-judged and wrong treatment of epilepsy in many cases render the disease incurable?

35. Will it not be advantageous to reject all those remedies which superficial reflection and uncertain experience suggest? At what period will it be best for the patient to do nothing, from the fear of hazarding too much?

36. It is a dangerous habit, which a great many presumptuous physicians have adopted, of calling those nervous diseases which they are unable to cure. The subject of epilepsy should not be left in so much uncertainty, for it well merits the trouble of being examined anew, with serious attention.

37. It will be a happy approximation towards improvement, if we cease to content ourselves with the first appearances which discover themselves after death, in dead bodies, if we constantly oblige ourselves to rely on authenticated facts, and substitute sound reasoning for the accumulated experience of quacks.

38. In what class shall epilepsy be arranged, in consequence of researches pursued in this manner?

Those alone, in my opinion, will resolve this problem, who, struck by the observations offered in this work, convinced of their truth, and having made them their own by their experience, instead of fabricating a vain system, shall take pleasure in interrogating nature, and interrogating her frequently. They will be those who will not content themselves with half observations, who will not oblige themselves to prescribe a remedy, until they have carefully examined the nature of the disease; who, in following the progress of disease, shall take for their model the conduct of great physicians; who shall do that which Wichmann has ordered in his treatise on Diagnostics, and that which Walstein prescribed before him, for the examination into the nature of the diseases of animals. These are examples well worthy of imitation.

If the horror of the disease of which we have spoken be not sufficient to engage physicians to make serious and repeated observations upon the nature and history of epilepsy, they need only cast a glance on the uncertainty and contrariety of the curative means that are opposed to it.

I do not here speak to those physicians who have for ever theories in their mouths, and who yield themselves to the most blameable empiricism, who make their reputation consist in a continual change of treatment, a change which they attribute to the improvement of the art, notwithstanding it reflects but little honour on their science or their skill. I address

address myself to those who endeavour to find relations between practical treatment and medical science; who attach themselves to the most certain data; who do not confound a vain scientific jargon with the plain language of truth; who despise the pedantic ostentation of technical terms, because there are better opportunities to employ them; who recollect that physicians as well as surgeons ought to be very sparing of their prescriptions as well as of the use of their instruments, because medicines and surgical operations ought only to be the result of an enlightened experience; who recollect and avow the imbecility of art, when not sufficiently directed by experience; who do not boast of the extent of their knowledge, when every thing announces how limited it is.

Such men will be able to throw light on that part of the science which is yet covered with darkness. The wise will admire them. The skilful physician proceeds with a steady step in the road of truth, and becomes really useful, while the half learned excites pity by his ignorance, of which, in every instance, he affords new proof.

The path which conducts to truth is not so obscure as we may believe; it is only difficult, and therefore it is that all the world cannot find it.

For the Medical and Physical Journal.

Queries addressed to Mr. Smerdon.

ONE of the most eminent surgeons in this metropolis for a scientific knowledge of his profession, in his investigation of the proximate cause of inflammation, observes, that he shall not be expected to examine those causes designated under the terms archeus, anima, living principle, &c. as their existence must be first demonstrated before any interpretation founded on their agency can be admitted. I should, therefore, feel much obliged to Mr. Smerdon, if he would have the goodness to inform me, what are his proofs, that irritability is independant of living organization; I should also thank him for the evidence of the existence of a nervous fluid, and its emanation from the brain; and to know whether he uses the term theory as synonimous with hypothesis.

Jan. 25, 1815. LONDINENSIS.

For the Medical and Physical Journal.

Annual Meteorological Table for Sidmouth, Devon, 50° 41′ N. lat. 3° 13′ W. long. by DR. CLARKE.

1818.

Months.	Thermometer—Northerly exposure. Day.	Highest by Six's Register	Wind.	Day.	Lowest by Six's Register.	Wind.	Mean of the extremes.	Mean of the highest.	Mean of the lowest.	Mean of the highest & lowest.	Mean at 9 morning.	Mean of 2 afternoon.	Mean of 9 a. m. and 2 p. m.	Mean of 11 night.	Mean of 9 a.m & 11 p.m.	Greatest variation in 24 hours.	Barometer. Day	Highest.	Wind.	Day.	Lowest.	Wind.	Mean for the month.	Greatest range in 24 hours.	Hygrometer of De Luc. Days.	Greatest moisture.	Wind.	Day	Least moisture.	Wind.	Range of 24 hours.	Mean.	Weather. Fine.	Cloudy.	Wet.	Winds. N and NE	E and SE	S and SW	W and NW	Rain Inches and decimals.
Jan.	29	44°	NW	21	18°	N	31°	35°	29°	32°	32°	35°	33°	31°	33°	16°	1	30·21	SE	29	28·50	NW	29·63	·91	—	—	—	—	—	—	—	16	1	14	19	4	2	6	3·85
Feb.	8	53	NW	21	23	NE	38	43	33	38	36	42	39	36	38	12	17	30 51	NE	6	29·85	W	30.14	·35	—	—	—	—	—	—	—	20	1	7	9	11	3	5	·68
Mar.	27	54	SW	7	27	NE	40	44	35	39	38	43	40	37	39	10	15	30·50	NE	2	28·96	W	29·86	·29	—	—	—	—	—	—	—	17	2	12	13	8	5	5	·75
Apr.	13	63	N	4	35	N	49	56	43	50	50	54	52	45	50	8	8	30·32	S	2	29·42	SW	29·92	·34	—	—	—	—	—	—	—	15	1	14	4	7	11	8	3·25
May	26	67	S	11	38	E	52	61	44	52	51	57	54	46	51	10	11	30·51	E	5	29·41	SE	30 04	·47	—	—	—	—	—	—	—	20	10	1	6	14	9	2	·60
June	30	75	S	7	43	SE	59	66	51	58	60	63	61	52	58	10	24	30·41	E	3	29·76	NE	30·10	·33	—	—	—	—	—	—	—	18	1	11	5	9	4	12	2·85
July	25	76	SE	2	47	SW	61	71	58	63	66	69	67	56	63	9	25	30·36	SE	20	29·74	S	30·04	·25	—	—	—	—	—	—	—	20	1	10	1	4	12	14	1·60
Aug.	4	76	S	28	46	N	61	70	54	62	63	68	65	55	62	10	31	30·39	S	24	29·70	SW	30 08	·40	—	—	—	—	—	—	—	16	1	14	2	2	10	7	1·50
Sept.	1	73	S	10	42	SW	57	66	50	58	60	63	62	52	58	9	1	30·41	S	24	29·70	SW	30·13	·27	24	41°	SW	10	14°	SW	15°	25°	20	0	10	8	2	10	3	1·80
Oct.	14	61	S	9	33	NW	46	55	44	50	49	54	52	46	50	12	10	30·34	NW	19	29·19	SW	29·87	·53	12	40	S	2	14	NE	18	28	17	0	14	1	3	11	14	5·20
Nov.	14	57	N	21	25	NW	41	49	39	44	43	47	45	43	44	11	1	30·44	SW	30	29·36	W	29·85	·53	28	39	S	21	25	NW	10	31	15	1	14	8	0	8	14	1·60
Dec.	11	57	SW	26	28	NE	42	48	40	44	43	46	44	42	43	17	0	30 31	NW	26	29·12	NE	29·79	·59	30	42	SW	16	25	NW	14	36	12	0	19	5	4	12	10	4·05

ANNUAL RESULTS.

Thermometer.

Highest by Six's Register, 25th July	76°
Lowest by ditto in the night, 21st Jan.	18
Mean of these extremes	48
Mean of the mean of the highest	55
Mean of the mean of the lowest	43
Mean of these two	49
Mean of 9 morning	49
Mean of 2 afternoon	56
Mean of 9 morning and 2 afternoon	51
Mean of 11 at night	46
Mean of 9 a. m. 2 p. m. and 11 p. m.	49
Greatest variation in 24 hours, Dec. 19-20	17

Mean temperatures from observations taken at	9 a.m. 2 p.m. & 11 p.m.	9 a. m. and 2 p. m.
For Nov. Dec. and Jan.	40	41
— Feb. March, and April	43	44
— May, June, and July	58	61
— August, Sept. and Oct.	57	60
— Six winter months	42	43
— Six summer months	58	61
Annual mean	50	52

Barometer.

Highest obs. 17th Feb.	30·51
Lowest — 29th Jan.	28·50
Greatest range, Jan. 28-29	·91
Annual mean	29·95

De Luc's Hygrometer.

Mean for the months 80°.

Weather.	*days.*
Fine	206
Cloudy	19
Wet	140
	365

Wind.	*days.*
N and NE	81
E and SE	77
S and SW	107
W and NW	100
	365

Rain for the year, 25 in. 73 dec.

FROM THE EDITOR.—We shall be thankful to the ingenious author of the foregoing Table if he can, on a future occasion, favour us with the progress of diseases, and, as far as his observation extends, their connection with the state of the weather.

For the Medical and Physical Journal.

Description of an Annular Saw; by Mr. MACHELL, Surgeon, of Wolsingham.

WHEN an invention is novel, in both application and principle, it is somewhat difficult to convey a clear and correct idea, by any drawing or description, that may be generally understood; but I am induced to give the following description of my Annular Saw, from the very flattering reception it has met with from the Earl of Stanhope, by whose approval and patronage I have been honoured, and also by several surgeons of the highest professional eminence in the kingdom, by whom the Annular Saw is acknowledged to supersede the use of the trephine, trepan, Hey's saws, bone nippers, rasp, the mallet and chissel, &c. &c. in all cases where any portion of carious bone demands the interference of our art to remove it. These instruments which I have recited above, are the best at present in use, in a variety of surgical cases where the common saw cannot possibly be applied; and there are also many cases where even these instruments cannot be used but with the greatest regard to the patient; as in the cure of simple fractures, where there is a want of union, by the bone ends rubbing against each other, from which they become smooth, and are thereby prevented from uniting. We are advised by authors, to lay bare the fractured ends of the bones, and to remove a portion of their callous and smooth edges. This operation has been repeatedly performed, yet I believe with little success, which may be owing to the great extent of muscular surface unavoidably exposed, together with the injury inflicted upon other important parts, in order to apply such instruments that have been hitherto used in performing the operation. The Annular Saw is considered as well adapted for removing a piece of bone in similar cases with celerity and safety, without injuring any of the large blood-vessels and nerves that may lie contiguous or immediately in the neighbourhood of the fractured part; *here* the incision must be made, and *need* only be of length sufficient to admit of the soft parts being retracted to the width of about an inch, a little more than the diameter of the bone, for the purpose of applying the saw, and which should be, as near

as

as we are able to judge, equal to the bone's diameter. The great length of time so formidable an operation requires in the ordinary mode of proceeding, is, to most surgeons, of little practical importance, as the success of cure is thought to be no way retarded; yet, when the length of time we are engaged in performing an operation is calculated by *minutes* instead of *hours*, this will undoubtedly be a desideratum to the patient.

Perhaps the following case will demonstrate its decided advantages over any other surgical instrument at present in use, and from this, its application in many similar cases will be at once understood.

A Case of Necrosis.

In 1806, I had under my care, J. Taylor, a young man who resided at Witton-le-Wear, county of Durham, and who had become very weak and emaciated from a disease of fourteen years' duration, and had dragged about one of the worst sort of ulcerated legs. At the time I first saw him, he had night perspirations, alarming hectic, and great prostration of strength. On examining the limb, I found it a complete case of Necrosis, and determined to remove, if possible, the sequestra, which was inclosed by a case of new bone: this was also perforated by a number of holes of the size of a goose-quill, and from which a copious sanious discharge was pouring out daily. Neither the head of the trephine nor Hey's saw could be admitted, on account of the great destruction to the surrounding soft parts that they would necessarily occasion; recourse was therefore had to the mallet and chissel; but, on the slightest attempt, the pain was so acute, and he, having previously refused amputation, now chose rather to die than submit to the operation being completed; so that for want of other proper means to remove the carious bone, it was at this time deferred without much hope of ever being able to relieve him. Horrid as these instruments already described may appear, they are the best at present in use in such cases, and are strenuously recommended by our first surgeons, and particularly by Mons. Bousslin. However, after a short absence from my patient, an idea occurred to me, that an instrument might be constructed which would be of considerable advantage in this case, and I delayed no time in communicating it to him, or in getting my design accomplished. When I again saw him, I was prepared to begin the operation, being then under promise to my patient to remove the diseased bone, without making use of such blows as he had before experienced from the mallet and chissel, and which, with those instruments, could not possibly

sibly be avoided. I first cleared away for the space of an inch and an half by about an inch, the integuments and periosteum, which had become much thickened, down to the bone at the upper part of the leg, when the new bone, to the dimensions described above, was very easily sawed through with the Annular Saw, which exposed the upper end of the sequestra: this part was cut off transversely, again divided longitudinally, and then extracted in two pieces; the remaining part was laid hold of by the common forceps, drawn up to the top of the opening, and then sawed off: this was repeated thrice, and the whole sequestra, being seven or eight inches in length, was sawed into pieces in the middle of the leg, and extracted by an opening in the integuments and new bone of the above dimensions. The violent irritation which the diseased bone had occasioned, obliged him to have constant recourse to opium with good effect, and in the space of six months, he was so far recovered as to be able to walk without a stick, and was restored to perfect health.

Dr. Clanny, a most respectable physician of Sunderland, was present during the operation, and afterwards expressed his opinion in the following letter:

"I witnessed the operation in which you used your Annular Saw, in the case of Necrosis, at Witton-le-Wear, in the summer of 1806, with much pleasure and satisfaction. In my opinion, a more ingenious instrument for the purposes which you designed it could not be devised, and have no doubt but you will be amply rewarded by a discerning public. W. Reed Clanny, M.D.

"*To Mr. Thomas Machell, Surgeon, Wolsingham.*"

The three following certificates are from surgeons of the highest professional character:—

"*London, Sackville-street, June* 15, 1812.

"Mr. Machell has shown me a circular saw, which he has applied to the purposes of sawing bones. It is a very ingenious invention, and applicable to many cases of surgery: he is, therefore, highly deserving of encouragement. Everard Home."

"I have examined Machell's Annular Saw, at the request of the inventor (Mr. T. Machell), and it appears to me to be exceedingly well calculated, from its mode of operation, to divide bones, or protrusions of splintered bones; consequently very frequently, or more immediately, to gun-shot wounds; and for which I know of no instrument in use capable of being equally applicable in such cases, and it is deserving of protection. J. Charlton,

"Surgeon-Major, 1st Foot Guards.

"*London, 5th June,* 1812.

"*To Mr. Thomas Machell, Surgeon, Wolsingham.*"

"I think the Annular Saw, invented by Mr. Machell, will be found very useful for the operations in surgery in which he proposes to use it. "J. Doratt.

"*London, Bruton-street, June 3, 1812.*"

Mr. Ingham, a surgeon of the first eminence in Newcastle, has also favoured me with his opinion of the Annular Saw:—

"Sir,—It appears to me that your improved Saw is well contrived to saw bone in various surgical operations with expedition and facility. I am, Sir, your's, faithfully,

"Wm. Ingham.

"*Newcastle, April 18, 1814.*

"*To Mr. Machell, Surgeon, Wolsingham.*"

For the Medical and Physical Journal.

On the Operation for Artificial Pupil; by Mr. Stevenson.

THE manner in which you have been pleased to notice, among the articles of medical intelligence in the last Number of your long-established Journal, the success with which I performed, in two instances, the operation for artificial pupil, suggested to me by the celebrated inventor Dr. Assalini, seems to require a few words, lest I should be suspected of withholding from the public any important practical improvement, the result of my own observation and experience. In the present stage of the business, I have availed myself of the directions liberally imparted to me by a distinguished foreign practitioner. As, however, the process seems to possess a decided superiority over every other mode hitherto recommended for the same purpose, I should feel a satisfaction in detailing the particulars, assigning, at the same time, my reasons for giving it a preference; but, by so doing, I should forestal the Professor's valuable work on this subject, written in the Italian language, and of which a translation is now preparing for the press, under the able superintendance of Mr. Pettigrew. When the performance shall have made its appearance in an English dress, will be the proper time to suggest any alteration which frequently repeated practice may suggest, and the advantages of which can be only proved by experience.

JOHN STEVENSON.

Great Russel-street, Bloomsbury-square; Jan. 22, 1815.

For

For the Medical and Physical Journal.

On Pseudo-syphilis, with Reflections on the Case of W. O.; by Mr. R. WALKER.

THERE is a new disease, or rather perhaps an old affection with a new name, introduced of late years to the attention of the faculty, denominated Pseudo-syphilis, which, it is said, is so like true syphilis in its appearance and symptoms as to be occasionally mistaken for it.

It is asserted by a professional gentleman of great celebrity, first, that the appearances and symptoms* of pseudo-syphilis, which he has thus named, are so exactly similar to true syphilis, that even he himself has not been able to ascertain or discriminate, from inspection alone, the difference between the two, and that he is obliged to resort to other means for this purpose; secondly, that he has acquired the means, however, from the history of the case; —the irregular progress of the disease (true syphilis uniformly getting worse, if its progress be not arrested or prevented by mercury), but more especially by the more rapid progress of the constitutional symptoms, as sore throat, eruptions, &c. and the more quick, sudden, and irregular changes, from one symptom or affection to another, than in true syphilis; and, thirdly, in consequence of mercury, in any manner exhibited, having no good effect upon them, but otherwise; which is never the case, by a judicious management of mercury in true syphilis, and therefore requiring very different means.

Even the primary sores, though ordinarily wanting the distinctive character of chancre, are occasionally so like as not to be distinguished from that.

This disease, or affection, is supposed to originate, or to be produced by the absorption of morbific animal matter into the system of a nature different from that which causes true syphilitic affections.

Moreover, it is asserted, that this may happen without sexual intercourse; and even be absorbed into the habit without a previous sore.

It is the commonly received opinion, at this time, I believe, that the matter, or discharge, which is produced in gonorrhœa virulenta is of a different specific nature from that of the syphilitic virus; (I remember the time, however,

* Viz. the syphilitic sore throat, eruptions, nodes, and in short every symptom of constitutional affection which is incident to true or genuine syphilis.

when it was considered the same in both instances) and that the latter can be arrested in its progress, or cured, only by mercury; whereas, it is well known, that gonorrhœa virulenta is cured without mercury; likewise, that, if left alone, it occasionally gets well, or exhausts itself, without the application of any remedy; and, moreover, however neglected or ill-treated, produces no constitutional effect, or secondary symptoms depending upon absorption of the virus into the system.

I believe, however, the fact respecting the different specific nature of the two has never yet been clearly and satisfactorily demonstrated; and, likewise, that the advocates of the former opinion furnish, as they think, satisfactory reasons of the identity of the two, viz. as principally depending upon the virulent matter being received either upon a secreting or non-secretic surface, as productive either of gonorrhœa virulenta, or chancre, and its consequent effects; the secreting surface being favourable for the former of these affections, and the non-secreting surface for the latter. Upon the whole, however, it must be admitted, according to ordinary facts, that there are greater difficulties in the way of the formerly received opinion than the present; moreover, the well known fact, that gonorrhœa virulenta, and all its consequent affections, can be cured without mercury; and the syphilitic affection, viz. chancre and its consequences, cannot, is sufficient as a rule for practice between them.

Since, however, it is probable, that every specific animal poison is capable of producing certain constitutional and secondary effects upon the human system, according to its peculiar nature, as in the instances of bites and stings from venomous animals, the absorption of putrid animal matter, &c. may we not, admitting the singular and newly-discovered fact respecting those affections which resemble syphilis so nearly as to have obtained the name of pseudo-syphilis, that this newly-distinguished affection may be derived and produced by the absorption of the matter or virus of gonorrhœa virulenta, considering this as a different modification of syphilis, or venereal affection, only, especially since it is ascertained that the secondary affection of this newly-described disease is, like gonorrhœa virulenta, itself curable without mercury, and likewise, as it is said, occasionally goes off again, or disappears by exhausting itself, without the assistance of medicine.

It is true, the discoverers of a new affection, or the propagators of a new doctrine, are too often led away, or too apt to indulge in certain fanciful ideas respecting it; and, I must confess, that in the present instance, certain observations

tions and opinions advanced, reminded me of a work, entitled *Lucina sine Concubitu*, and hence, I apprehend, some persons may have been led to treat the whole as not deserving of serious regard, as appears, I think, by occasional ludicrous allusions, as I have considered them, to this subject.

If it be ascertained, however, that, in this country, there is a false or rather spurious species of syphilis arising from sexual intercourse, produced by absorption of a different species of virus into the system, and requiring a different mode of treatment, its characteristic difference from true or genuine syphilis should be generally known, otherwise, I apprehend, especially amongst the younger part of the profession, very serious consequences may arise from the mere promulgation of such a fact, without the precise means of discrimination.

I have been led to these observations, as well from the knowledge of cases actually of a syphilitic nature, which were cured by mercury, which had been supposed to be, as I presume, of a pseudo-syphilitic nature, having been ineffectively treated without mercury before; as from a conviction that I may have erred occasionally myself on the other side. All circumstances considered, however, I am of opinion, that an error on the first side of the question is the greater evil of the two.

It is, perhaps, scarcely necessary to observe, that, although the internal exhibition of mercury alone might, judiciously managed and duly persisted in, effect a cure in most or all syphilitic affections, yet the only perfectly effective means is by mercurial inunction, which acts as specifically, as it were, upon this disease as water upon fire.

Moreover, I consider the mode of cure, by the internal exhibition of mercury alone, excepting where, from any cause, mercurial inunction cannot be complied with, as an unnecessary and injurious annoyance of the stomach and bowels, especially the more acrid preparations of mercury, as the corrosive sublimate.

It must not be forgotten, however, that, although the internal absorption of mercury into the system is, ordinarily speaking, a certain specific or antidote in syphilitic affections, yet the occasional application of topical means, not of a mercurial nature, are essential in certain local affections, as chancrous sores, ulcerated bubo, &c. and which, by the bye, forms an intricate as well as essential part of the treatment;* and,

* Ill-conditioned eroding chancrous sores and spreading ulcerated buboes, were once formidable difficulties to me, especially among

and, likewise, to know when and where to stop the exhibition of mercury; the latter circumstance may ordinarily be known by the sores changing to a kind of putrid tendency.

I have not unfrequently met with instances of persons who have come to me with a supposed venereal affection, which, on examination, I found to be an ordinary sore, or even a mere abrasion of the part, arising probably from friction. In these instances, I judged it prudent to administer a mild mercurial, viz. the Pilulæ hydrargyri, leaving the sore to itself, or dressing it with an application of no specific character.

Such sores quickly healed, the patient had not been annoyed by the mercurial; and both the patient and myself remained satisfied.

The same line of conduct I should be inclined to pursue in all dubious cases, being well aware that by such means I might detect the presence of such affections as were of a true syphilitic nature, or, with impunity to the patient, discover such as were not so.

The most perplexing kind of cases I have ordinarily met with, both respecting a true discrimination and the fittest mode of treatment, is, where syphilis has been grafted, as it were, upon scrophula. It is extremely difficult, or rather almost impossible, to persons in ordinary practice, to believe that certain cases of an assumed pseudo-syphilitic nature, so closely resembling the true syphilis, as they are described to be, can be any other than the disease itself, rendered obscure, perhaps, by being combined with some other constitutional affection, or a different modification, as hinted at above, of a venereal affection. In either case, a cautious administration of mercury, by way of trial, by means of the Pilulæ hydrargyri, or mercurial frictions, or, according to circumstances, both conjointly, which I consider to be the most effective means, cannot be productive of any evil consequences, and must necessarily point out the true line of practice to be pursued. I am strongly of opinion, if the gentleman who described his case himself, provided it be a correct relation of it, in the Medical and Physical Journal for December last, had adopted this plan at first, instead of taking the corrosive sublimate, he would soon have amended, and, by perseverance, been cured.

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among persons compelled to pursue their ordinary avocations, notwithstanding the best information I could obtain from men and books; but further experience and attention has enabled me to reduce the treatment of them to a kind of mechanical command or certainty.

I shall

I shall take this opportunity of noticing a circumstance which has recently occurred, although perfectly irrelevant to the present subject.

An artificer applied to me, having some time before received an injury in the middle joint of the fore-finger of the right hand, but which he had not before considered to be of a serious nature.

The joint was inflamed and enlarged with a small wound evidently communicating with the joint. The finger continued to increase in size and inflammation, to an intense degree, but there was no fluctuation or apparent collection of matter.

At length, a thin glairy fluid, mixed with pus, issued from the wound, in the course of which, the tumor and inflammation gradually subsided, and the bones at the joint grated and became quite loose; the remaining tumor and inflammation, at length, entirely disappeared, and in the end, about six weeks from the time the injury was received, the wound was healed, and the joint perfectly consolidated, viz. a fixed joint with a certain degree of flexure in it.

During the inflammatory state of the finger, a linseed poultice was applied; when this had completely or nearly subsided, a dressing with simple cerate was applied, with splints and roller, tightening the roller by degrees as the finger would bear it.

Having once ascertained the state of the joint, by an accurate examination, I forbore every thing of this kind afterwards, keeping the part as free from motion as possible, taking particular care, at each time of dressing, to press, or milk out as it were, the matter at the wound from above and below the joint; from the intensity of the swelling and inflammation a large portion of the cuticle separated of course and was removed.

In the course, or progress, of this case, a professional gentleman of eminence was applied to, whose opinion was decidedly, that the finger could not be preserved, which most probably might have been the same with most others of the profession.

It appeared to be important to the patient, notwithstanding the stiffness of the joint, of which I apprised him, for the finger to be preserved; care was taken, however, in the course of the cure, to favour, as much as possible, a due degree of flexed state in the joint.

I mention this case to show the fair prospect there is of preserving limbs, when the injury in the joint arises, not from a constitutional taint, as in scrophula, &c. but from incidental

incidental injury, and constantly to bear that distinction in mind.

By the same mode of treatment, I have succeeded in the larger joints, as the knee, or elbow-joint, even in some, after they have been condemned to amputation, and in some instances, the same mode has succeeded even in scrophulous joints by very long perseverance.

Care should be taken, in the course of the cure, that a due degree of straitness, or flexure, be preserved, according as the nature and use of the limb may require, which is promoted much by a due form and application of the splints, viz. either strait or flexed.

In the smaller joints, as the finger, the splints are best made of thin metal, as tin, with a due degree of flexure, and applied to each side of the joint, confined by a roller.

The finger was never, till nearly well, dressed less than twice in the day, and, whilst at worst, thrice in the twenty-four hours, taking especial care to press out the matter each time, after the manner described, upon which latter circumstance, much of the success in such cases depends. In the course of the cure, it became necessary once or twice, in consequence of the wound prematurely closing, to puncture it with a lancet, and to use a stimulating application under the cerate to keep it open.

Oxford; Jan. 1815. RICHARD WALKER.

For the Medical and Physical Journal.

On the Importance of the Nervous System in the Animal Economy; by Mr. JAMES, of Hereford.

I BEG permission for a small space of your Journal, for a few observations to shew the great importance the nervous system holds in the animal economy, as influencing many intractable and distressing diseases, from alteration in their structure.

During the short time I was in Edinburgh, my attention was directed to a peculiar state of the nerves, by what I heard Dr. Sanders say in his Lectures on the Practice of Medicine—(lectures, which I shall always think of with pleasure and satisfaction); with him, I had an opportunity of seeing, by examination of bodies after death, precisely what I had heard stated in the lecture-room, viz. a turgescence of arterial blood covering the origin of nerves going to parts affected with irregular actions; the name of convulsion is so much better known than its nature and cause, as I hope to warrant

warrant a public notation of such appearances, with a view of the subject being further investigated.

The first case I witnessed (which will serve to elucidate my meaning) was a child about two years of age, a little patient of Dr. Sanders's, and I am sure he will allow me to refer to my notes upon this occasion for a brief detail of it to the public. The little sufferer had just recovered from the measles, when (which is not an uncommon occurrence,) he was seized with some affection of the mucous membranes of the lungs and bronchiæ, the respiration was difficult, the pulse quick and feeble, and asthma seemed a predominant symptom, the abdominal viscera seemed much deranged in their functions, to which succeeded spasms and convulsions. The muscles of both arms were acting irregularly, also the muscles of the eyelids and diaphragm; these actions alternated with crying, till that last repose which ends all our sufferings closed the scene: a short time prior to death, there appeared insensibility of both retinas.

Dissection.—I think it right here to state Dr. Sanders's prediction during the time the body was on the table for examination, which, at that time, struck my attention very forcibly: he observed, he did not expect to find any disease in the lungs or bowels sufficient to account for the fatal event, or even the symptoms which occurred during life; but that we should find effusion in the ventricles as well as at the base of the brain, round the tuber annulare, medulla oblongata, and top of the spinal canal at the foramen magnum, and that we should find arterial turgescence on the offset or visible origin of the nerves which served the convulsed organs. Upon opening the thorax, pus was found in the bronchial glands, and the lungs not sufficiently diseased to destroy life. In the brain, there was an increase of water in the lateral ventricles, also effusion in the fourth ventricle, and at the base; the plexus choroides was of a venal dark colour. On examining the nerves of the brain, both optics had a turgescence of red blood covering them at their origin for the space of an inch, appearing as if a brush, connected with red paint, had been drawn over them; or a better analogy will be to say, as if the small vessels of the nerves had been injected with subtle red wax, if such had been possible; the fourth pair of nerves had the same red appearance, also the eighth; and, on that part of the spinal marrow from whence the nerves of the arms originate, the vessels appeared dilated with red blood, perhaps to the utmost power of dilatability; shewing the existence of pure inflammation.

I have here done no more than noted facts, and will leave to the speculative mind to imagine the effects such alteration

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in the structure of parts so pre-eminent in the functions of life is likely to produce.

In the prosecution of morbid anatomy, it must be the object first to ascertain what change takes place in the first alteration or disease; 2ndly, how that disease is communicated to other parts; and, 3rdly, how such diseases are likely to be relieved by our first knowledge. A learned author has said, that the knowledge of morbid structure does not lead with certainty to the knowledge of morbid actions, although the one is the effect of the other; yet, surely it lays the most solid foundation for prosecuting such enquiries with success: in proportion, therefore, as we shall become acquainted with the changes produced in the structure of parts from diseased actions, we shall be more likely to make some progress towards a knowledge of the actions themselves, although it must be very slowly.

It appears, then, that the knowledge of such diseases is useful in proportion as it directs us how to relieve the symptoms when they occur, which appears to me best done by the abstraction of blood from as near the origin of the nerve as possible, to relieve turgescence; then the application of a stimulus to make the vessels contract to their natural size, which will facilitate the operation of nature to a return of health.

I could here relate other cases, similar to the foregoing one, where effusion at the origin of nerves produced spasmodic actions in the parts supplied by the nerves thus affected; but such would be unnecessary, as I wish at present briefly to notice what I have seen on dissection, without entering into any physiological discussion of the cause, because Dr. Sanders has recently informed me, he is preparing a detailed and practical work, founded solely on Anatomical Examination, to shew the influence the whole contents of the head, and spinal canal, as well as all the nerves of the brain, tuber annulare, medulla oblongata, and spinal marrow, have individually and conjointly in the phenomena of disease; indeed, I understand, he has, for some time past, directed much of his leisure time to this subject, and I make no doubt the result will contribute largely to reduce the practice of medicine to simple and fixed principles. That he may speedily complete his work is the sincere wish of his friend; to work in such a cause is to work in the cause of humanity; it is infinitely more agreeable to save a single life than to have the command of an empire.

Hereford; P. P. JAMES, Surgeon.
December 22, 1814.

For

For the Medical and Physical Journal.

Case of Recovery from Opium; by Mr. M. Rowe.

ON the 29th of August, 1814, I was called in to Mrs. S. aged 23, who, determined upon self-destruction, had swallowed a very large portion of liquid laudanum, (according to her subsequent statement, a wine-glass full, containing sixteen drachms).

When I first saw her, the poison had been received into the stomach about half an hour, and she was perfectly insensible, so much so, that she fell off the chair on which she was sitting in a state of utter stupefaction. I immediately dissolved one scruple of antimonium tartarizatum in a pint of water, which was taken at intervals without producing either nausea or vomiting; I, therefore, again dissolved the same quantity in another pint of water, which was also taken in the course of fifteen minutes, and with as little success, for it produced no sensible effect whatever. My patient still remained in a comatose state, totally insensible, excepting at short intervals, when she complained of extreme cold; the pulse so weak that its vibration was scarcely perceptible, and the pupil in some degree dilated. I now dissolved, in two ounces of water, half a drachm of zinci sulphas, adding one drachm of diluted sulphuric acid; all of which I gave at a single dose, and, to my extreme satisfaction, in less than ten minutes it produced a most rapid and favourable change. She became roused from the torpor which had overpowered her; complained of violent sickness, and vomited a large quantity of fluid, in which the laudanum was perceptible, both to taste and smell. I continued for some time to encourage the sickness, by administering frequently chamomile tea, in which was dissolved a few grains of tart. emetic acidulated by sulphuric acid; until, at length, feeling convinced that the poison was totally evacuated, and the sickness having also subsided, I prescribed an aperient, by which the bowels were speedily moved three or four times.

My patient, by this time, was perfectly recovered from the deleterious effects of the opium; but the violent exertion produced by vomiting had, of course, left her weak and debilitated; strengthening medicines soon, however, recovered her from this evil, and, in a few days, I had the satisfaction of seeing her perfectly convalescent.

From an attentive observation of this case, and of the symptoms which were manifested throughout, I am induced to believe, owing to the sedative powers of opium, that, had I had recourse to bleeding (as recommended by Cullen and others) it would not only have considerably retarded,

but might eventually have endangered the recovery of my patient.*

1, *Clarendon-square,* MATT. ROWE,
Somers'-town. Member of the Roy. Coll. of Surgeons.

For the Medical and Physical Journal.

An Examination of Dr. Buxton's Mode of Treating Consumption, with Arguments against the Efficacy of High Temperature in that Disease; by T. SUTTON, M.D.

I FIND several communications have been lately made by Dr. Buxton to the Monthly Magazine, for the purpose of supporting his theory of the efficacy of high and equable temperature in consumption; and I also perceive a criticism in the Eclectic Review on Dr. Southey's work on Consumption, in which the writer avowedly advocates the same cause. I propose to make use of the materials supplied by these authors, to show the actual ground on which they stand by the statement they have made respecting the prevalence of consumption in various climates; and I am happy to use these materials, because they stand approved by the parties alluded to and myself.

The creed of Dr. Buxton and his friend the critic of the article in the Eclectic Review, respecting the cure of consumption by a high and equable temperature, may be readily stated in the doctor's own words from the Monthly Magazine. "A regular high temperature should be persevered in during the winter, on the supposition that these complaints (consumption, &c.) are chiefly produced and continued by variable and severe weather." "A most important remedy to oppose their progress (consumption, &c.) is warmth of temperature." "I conceived that there could scarcely be a possibility of its (the propriety of the application of such temperature in consumption) being disputed." The doctor has, however, found it to be disputed by me, and the critic complains of the opposition that the doctor's plan had encountered, and commends his zeal in striving against this opposition. Hence the doctor has made an appeal through the Monthly Magazine, and the critic has endeavoured to say all he can in support of his friend's doctrines, and, of course, little in favour of my sentiments on the same subject. It is now, therefore, incumbent upon me to follow them in the

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* This short, but very interesting, paper was intended for our Journal before it appeared in a contemporary publication. Besides its importance, we may plead the wish of the writer that it should have the advantage of a more extended circulation, which is our apology for reprinting it.—EDIT.

course

course they have thought proper to pursue, and to make a free use of their own materials, for the purpose of avoiding the possibility of our disagreeing about the most important facts on which they are disposed to rest their discussions in the present instance.

I shall develope these facts in my own way, which will, I hope, be found to be clear and evident, and arranged according to the natural order of the subject; and I shall begin by taking it for granted, which those who may hold a contrary opinion of the treatment of the disease will readily admit, that consumption commences, and prevails most, in the severe season of the year, in this country. Having admitted this, the first inquiry, according to our present plan, will naturally be to investigate in how far severe weather tends to create it, by a reference to the accounts of the prevalence of this disease in cold climates. On turning to the critic's facts as alluded to, he states that the inhabitants of Vienna and some parts of Germany are very subject to consumption, while other countries, in a more northern latitude than we inhabit, enjoy a comparative freedom from the disease, for instance Denmark, Sweden, Russia, and Holland. The Dutch, who in other respects inhabit a sickly climate, are proverbially free from consumption. Among the diseases of Canada, consumption is not mentioned. With these facts before our eyes, how can we infer generally, that severe weather causes it, and that cold is to be avoided under its attacks as the greatest evil—when we view the number and magnitude of the countries in severe climates, which escape the scourge of this disease. Are the people of Vienna, &c. more negligent of their health than their other northern neighbours; and are they also inattentive to their clothing, their buildings, &c.? Why does Canada enjoy an immunity from consumption? inhabited by a people mostly sprung from among us and from France, in both which countries consumption prevails, and carrying also with them, as far as the climate will allow, their European customs, habits, and amusements. From these facts, then, I infer that severe weather cannot be the actual and chief cause of consumption, because, if it were, we might even expect the prevalence of this disorder according to the relative severity of temperature in different climates, and a sort of ratio of disease as we verge gradually into the warmer countries, which will appear not to be the case. The proposition, therefore, cannot be maintained on these grounds, which states variable and severe weather to be the chief cause of consumption. This evidence does not, however, invalidate part of the doctor's conclusion, that the disease may be carried (to a certain

certain extent) by variable weather. While this is maintained to be a fact, we see the reason of consumption prevailing in this country in a greater degree in the colder seasons, because the temperature then varies more than in the other parts of the year. But it appears necessary to the plan of those who support the equable and high temperature treatment, to give a great part of the blame of exciting consumption to the severe weather, because they thence infer that a continued high temperature, in opposition to their supposed exciting cause, must be a proper remedy.

Let us now see what are related to be the effects of heat of climate in relation to consumption. I willingly follow these authorities for the information. Next to our own country, France and the south of Europe seem to be the regions most visited by this disease. Madeira is particularly so, and the disorder prevails much in Sicily. Do these facts afford us any useful analogy on which we can ground a practice of using high temperature, in imitation of the climate of southern countries, for the cure of consumption? If, in reality, we adopt any mode of temperature from observations grounded on the prevalence or exemption from consumption, in the various climates of Europe, we must endeavour to imitate a Dutch, a Danish, a Swedish, or Russian temperature.

Dr. Buxton has also travelled into tropical climates for information on this subject, and finds, by referring to authors, that consumption does not prevail in those latitudes so generally as with us. He is, therefore, led to conclude, and to rest his defence of equable high temperature for the cure of this disease, on what is related respecting its occurrence in those hot climates; but in these researches he does not find that perfect coincidence he appears to wish. Thus, respecting Jamaica, the most clear and authentic account on this subject contradicts the vague representations of others, and the doctor is pleased to find as a solution of the cause of more consumption being found to prevail in that island, that it varies more in the degrees of temperature than any other in the West Indies. He makes the like remark respecting Sicily. But does he recollect that this can serve him nothing in regard to his ground-work proposition, in which he asserts the origin of consumption to be derived chiefly from severe and variable weather, while in these cases, however he may rely on the variable, he must relinquish the very corner-stone of his edifice for the support of his high equable temperature, for the cure of consumption, by allowing this disease to exist in countries where the term *severe weather* cannot be applied. This opinion is also strongly opposed by the very

authentic evidence that the disease prevails least of all in some of the most severe climates of Europe, and in the severe colds of Canada.

In drawing an inference in favour of the climates of the southern countries of Europe for the cure of consumption, it must be evident, that there has not existed a most perfect information on the subject. But, on a supposition that the disease does not prevail so much in some countries as in others, does it prove absolutely the propriety of sending such patients into those climates. I think decidedly not. There is another and a more important fact in the inquiry to be ascertained, and which appears to have been somewhat neglected: it is this, whether, when the disease actually occurs, it is more or less fatal in any proposed climate than in that in which the patient lives. I consider it to be of no consequence to contend whether there are more or less consumptive patients in Sicily or Madeira, or in the West Indies, for the purpose of forming an opinion of the propriety of sending patients there. I would rather inquire, do patients more frequently recover from this disease in any certain climate? Now there can be nothing more evident than that consumption, whatever its relative frequency may be in regard to this country, is very fatal in Madeira. Dr. Gourlay bears testimony to this in strong and decisive terms, by stating that whole families in this island are swept away by it. In Sicily also, such is the dread of the disease, that a family in which it happens is wholly shut out from society, and the least thing is not allowed to be received by a family in health from one in which consumption exists, under a notion that this disorder is contagious. It may therefore be safely inferred, that the disease often affects several of a family, and likewise that consumption must be much dreaded in Sicily on account of its serious nature.

Within the tropics also, where Dr. Buxton has conducted the reader of the Monthly Magazine, if he had found the most complete evidence of the non-existence of the disease, he has only proved that there are circumstances connected with these regions which do not encourage consumption, and therefore the experiment of sending such as may be disposed to it, may be inferred to be fair and allowable; but, while he has not proved, in case of the disease being actually formed, that it is more tractable and less fatal, this information is of no value in the actual cure of consumption. The proposition that the frequency of occurrence of any serious disease shall be commensurate with its fatality, does not in many respects hold good. We may instance that the lock jaw is a very frequent and fatal disease in the West Indies;

Indies; it is a much less frequent but equally fatal disease in this country.

Another instance of error in which I conceive those recommending equable and high temperature in consumption have fallen, is, in considering an occasional cause, which concurs with others to promote the disease, to be sufficient to point out a remedy for it when formed, and hence show that an opposite condition to that occasional cause should be adopted in the treatment of the disorder. In many instances, however, we have relinquished such a line of proceeding with the most evidently beneficial effects. For example, in many cases of fever in which cold has been evidently a concurring occasional cause; and in typhus, in which cold has as much the effect of promoting its prevalence in winter, in this country, as it contributes to cause consumption—nevertheless, in the treatment, we combine, in connection with other means, the use of cold to alleviate the symptoms, and cure these fevers, although we are aware that severe weather performs a material part in causing them, and rendering them more frequent in certain seasons of the year.

I cannot allow a remark to pass unnoticed, pointing out a sort of refutation of an opinion that I have given. I refer to my intimation, that a certain humidity of atmosphere is desirable to the consumptive, and that an actually contrary state is pernicious, and contributes in some degree to cause the disease. I shall make use of the materials on this subject allowed by the reviewer to be just, and I find that butchers, Scotch fish-wives, catgut makers, stable grooms, and dragoons, are noted to be particularly exempt from consumption in this country. Now all these are much in a comparatively moist atmosphere, and it may be right to remark, that the cure of consumption in a cow-house might to a certain extent be due, if at all preferable, to the humid vapour from the animals below. In addition to this, a remarkable fact is mentioned by Dr. Watts in his book on Hooping Cough, that a set of fishermen in Scotland, who, while at home for some part of the year, and living in idleness within their own habitations, frequently contract severe coughs, which they with certainty lose after having embarked for some little time in their employ on the ocean. In my letters on the efficacy of high and equable temperature for the cure of consumption, other reasons are given in support of this opinion. While conversing with Dr. Gladstone on the subject of the contents of the above-mentioned pamphlet, he related some circumstances respecting consumption which I considered to be very interesting. I therefore requested him to favour me with some of the particulars, which he has obligingly done in the following letter. Dr. Gladstone, at the

the time alluded to below, was in the capacity of a surgeon of a man-of-war.

"On leaving England for the Mediterranean station, in the year 1804, several men under consumptive complaints were embarked for the benefit of that climate, and others, having a tendency to these complaints, were retained on-board for the same reason. On our arrival, it was found that the experienced medical officers of the fleet on that station, were sending their consumptive patients to a northern climate, as the only chance remaining for their recovery. But few of such patients survive the south-east winds which blow very frequently on the shores of the Mediterranean. So well aware are the physicians of those countries of the fatality of this dry wind in consumptive patients, that they carefully guard them from it. Three out of nine of those patients who embarked with me to the Mediterranean, died during one day's dry wind; the other six were sent to the hospital at Malta, to be invalided to a northern climate. During five years' service in the Mediterranean, I have invariably observed that more consumptive patients have died during the dry summer-months than in the winter, and that the hectic fever is always higher, and the wasting greater, during the dry than the wet season. While in these seas, I had a case of an officer in consumption, who was sent to the hospital at Malta to be invalided for a northern climate; but, on finding his ship ordered to Constantinople for the winter, he re-embarked, and perfectly recovered among three months' fogs equal to any in England. This is a fact which happened under my own eyes. It may be necessary to say, that this officer lost his leg in passing the Dardanelles."

This letter contains facts which coincide greatly with circumstances I have stated in my letters on the efficacy of high and equable temperature in consumption, although the observations of each were made in very different climates. They also place in a strong point of view the impropriety of sending consumptive patients to the Mediterranean shores.

I shall close this communication by relating two cases of marked pulmonary affection, or what may be called consumption of the lungs, with their results. These I relate because they can be well authenticated in all their particulars, and are very intimately connected with the present discussion.

A man of the name of Dean, who keeps a green-shop at Deptford, came to me first about the beginning of December 1813. He had several times spit up blood, and now expectorated what he called phlegm. He had a quick pulse, hectic fever, and night sweats, and was much debilitated and emaciated.

emaciated. In the course of this month, finding himself getting worse, he consulted me about the propriety of going to his friends at Chiselhurst, to which I could not object. I gave him the following directions in regard to temperature: that he should get out of doors, if possible, every day; that he should not indulge in sitting over the fire, but keep himself warm by clothing. In regard to nourishment, that he should take a little animal food every day, if his appetite led him to wish for it, and drink a small quantity of porter, or wine and water. He came to me several times in a tilted cart during the severe weather, and his disease appeared to vary in no considerable degree for two months and upwards. A small abscess formed in the axilla, which was opened by Mr. Waring of St. Mary Cray. He had, twice or three times, a return of spitting of blood. In March 1814, he called on me, after an interval of a month, improved in every respect. He was some time afterwards in an invalid state, though attending to his concerns, but has passed through the present winter with very little inconvenience. I saw him a week ago in apparent good health; he had lost his emaciation. I have every reason to think that he attended strictly to my directions in regard to temperature, food, and medicine.

A gentleman of the faculty, who acts as an assistant to a relation of his in Deptford, has, previously to the time I shall more particularly mention, been in a very bad state of health, with cough, emaciation, pains in the bowels, and considerable debility; quick pulse, and hectic fever. He has the appearance of a scrofulous habit. In the latter end of January 1814, I was desired to see him, and found him expectorating considerable quantities of matter. I recommended him to be very guarded in respect to temperature, and not to suffer himself to indulge over a large fire, or to keep his sitting-room hot, to both of which I found him much inclined. This advice he entirely neglected, and he grew worse. It happened that several days in February were comparatively warm, and the sun shining strongly on the patient's sitting-room, together with a considerable fire, rendered the apartment particularly hot. During this time, which lasted for seven or eight days, he got evidently and rapidly worse; and his strength failed him so considerably, as not at last to allow him to remove into his sitting-room. He took to his bed in despair. I have now to state, that the bed-room the patient occupied had no fire-place, and was so situated as not to admit the rays of the sun into it, and had undergone no effort in airing than in being constantly used. The weather at this time also changed, and the

the temperature of the room could not exceed 45 degrees. During this confinement to bed under these circumstances, the patient gradually got better, and the spitting of matter from the lungs became very inconsiderable in about three weeks. He is now in no worse health than before the above-mentioned attack; and I consider his rescue from death to be owing entirely to his being obliged to keep his chamber, and a chamber of such description.

Croom's Hill; THOMAS SUTTON, M.D.
Feb. 10th, 1815.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

WE make no apology for the length of the following extract. The work in which we found it is not medical, and therefore less likely to fall in the way of many of our readers. The passage transcribed relates a well-ascertained fact, highly interesting to the pathologist, and, as far as our inquiries go, no where else to be met with. We have another reason for inserting it at this time, which we shall mention at the close.

Goitres of the Valley of Luchon. History of the Cagots.—From Ramond's Travels in the Pyrenees; translated by Mr. Gold.

"When the ingenious observer, to whom we owe the essay upon the mineralogy of the Pyrenees, passed through the valley of Luchon, he was struck with the sight of a great number of persons afflicted with considerable goitres, to whose deformity there was joined an air of stupidity, still further increased by an indistinct articulation. He remarked in these degraded beings a livid and sallow complexion, a weak habit of body, and such apathy, as to give them, says he, an aptitude only for repose. To describe these unfortunate beings, is to describe the Cretins; and the Valais would, in this respect, have no further advantage over the valley of Luchon, than in its being able to produce a greater number of these miserable creatures.

"But such deplorable superiority is not on the side of the Valais. In the southern parts of France, this unfortunate portion of the human race is very widely extended. In the valley of Luchon, their state of beggary brings them more into view; but

they are found in the valley of Aure, in that of Bareges, in Bearn, and even in Navarre. These latter exist in the most retired places only, but when seen, exemplify a degradation, a dullness, and stupidity, which even the imbecility of the Cretins of the Valais does not surpass; and which deprives them of the last remains of the intelligence of man, together with the last traces of his figure.

"It might be readily imagined, in observing this sad conformity of condition, that the causes of degradation in both countries should be similar, and that to explain the Cretinism of the Alps, would be to explain the Cretinism of the Pyrenees. But in vain should we endeavour to apply the same systems to the same fact. The Cretins of the Pyrenees occupy the northern vallies of the chain, are found in extensive basins, on an open soil, in a dry and temperate atmosphere, and are in the habit of drinking only fresh and pure waters. Every thing conspires to forbid the inferences of analogy. It is to the south that are found the Cretins of the Valais, of Savoy, of Piedmont; it was to the south, therefore, that I should have found them in the Pyrenees, in those narrow Spanish vallies, where the rays of the sun, reflected in all directions from naked rocks, concentrate a stifling heat; and where, in the vitiated air, are suspended unwholesome fluids, dissolvable only from such an extraordinary degree of expansion; in those southern vallies also, where, as in the Alps, the declivities are more abrupt, the rocks more steep, and the mountains more decrepid, should I have found those waters which wash a surface of imperfect slate and schists, the calcareous particles of which are dissolved by means of a sulphuric or carbonic acid, and deposited in the vessels of those who are obliged to drink them. This latter cause of Cretinism, indeed, may probably exist in some of the northern vallies, but it cannot operate as a general cause; for Bercugnas, which is watered by the Go, possesses persons afflicted with goitres, while Bagneres, which it waters also, has not any, and Saint Mammet, which it does not water, has even more than Bercugnas.

"Another argument remained in favour of the system which makes the stupidity of the inhabitants of the Pyrenees accord with that of the elevation of their vallies, and their distance from the sea. But this explanation, however plausible at its first appearance, and whatever probability it assumes from the consideration of the agility of the Basque, when opposed to the dullness of the inhabitants of the valley of Luchon, loses all its force when the inhabitants of the southern and eastern parts of the Pyrenees are examined, and does not at all account for the Cretins of Bearn and Navarre. Habituated, on the other hand, from experience and former observations, to look upon force and agility as the lot of the inhabitants of elevated mountains, and having uniformly observed that sloth, infirmity, and Cretinism, by no means affect a lofty situation, I was forced, not only to allow that Cretinism is an accident, independant of such circumstances, but to consider the different degrees of vivacity, of force, and of agility, possessed by the people of the Pyrennees,

Pyrenees, as the appendage of particular races of men, rather than as the production of the soil or climate.

"My own observations, therefore, could throw no light upon the subject; and the best-informed persons whom I consulted, could not resolve the problem in a more satisfactory manner. I was obliged, then, to add another fact to the numerous list of those which show that similarity of effect does not always depend upon identity of cause, when, from my commerce with the people of the country, I found the nature of the question changed entirely, and discovered that the Cretins of the valley of Luchon were of the unfortunate race of the Cagots.

"But this information I drew from the inhabitants as a kind of confession, and could scarcely overcome the shame with which it was made known to me. They informed me that their vallies contained a certain number of families, which, from time immemorial, had been regarded as making part of an infamous and accursed race; that the individuals composing such families had never been reckoned among the number of their citizens; that they were every where disarmed; that they were permitted no other occupation than that of wood-cutters, or carpenters, an occupation become ignoble, like themselves; that they derive one of their common appellations from this occupation; that such appellation is infamous, because they bear it; that, as carpenters, they are every where obliged to march the first in case of fire; that, as slaves, they are forced to perform in every community such services as are reputed ignominious; that misery and disease are their uniform portion; that they are commonly afflicted with goitres; that their miserable habitations are removed into retired spots; and that, if at present the inhabitants of the country have less aversion to them, and if milder manners have a little softened the rigour of their old condition, there is still between the two races nothing in common, no commerce, and no alliance which is not, in the villages that witness it, regarded as an object of scandal.

"I thus discovered myself to be in the midst of this people of slaves, whose origin is lost in the stormy night of the first ages of our monarchy. I beheld this rejected cast, upon which so much has been written, without dispersing the darkness which covers the motives of so strange a proscription, and the individuals of which it was in vain to question, as, together with the rights and dignity of man, they have lost their traditions, and exist at present only as a monument of the miseries of an age which has transmitted nothing to us but what is odious or deplorable.

"What fact, indeed, is worthier of exciting the curiosity of the historian, and the pity of the philosopher, than the existence of this unfortunate people, whose miserable descendants are scattered along the ocean, from the north to the very south of France, and have every where been the objects of the same aversion, the victims of the same inhumanity. In the solitudes of Britanny, we find them treated with barbarity from the remotest of times. Scarcely were they permitted, in a more civilized age, to exercise the trades

of rope-makers and coopers. The parliament of Rennes was even obliged to interfere for the purpose of granting them the right of sepulture. At that time we find them known by the name of Cacous, and of Caqueux. The dukes of Brittany had ordained, that they should not appear without a distinctive mark. Towards Annis, they appear again in the island of Maillezais. La Rochelle is peopled by these Coliberts or slaves. They re-appear under the name of Cahets in Guiyenne; and, in Gascogny, are banished into the morasses and heaths of the country. In the two Navarres, they are sometimes called Caffos: they are named so in the ancient For, compiled about 1074. Lastly, they are discovered in the mountains of Bearn and Bigorre, in the four vallies, and the county of Cominges. There they are the Cagots or Capots, who, in the eleventh century, were given away by will, were sold as slaves, and reputed to be infected with leprosy and contagion, so much so, as to be obliged to enter the church by their separate door, and use their particular font, and seats, which were placed apart. In many places it appears that the priests would not admit them to confession; and, as we see by the ancient For of Bearn, an act of favour was thought to be granted them, when seven of them were admitted as an equivalent to the testimony of one free citizen. Even as late as the year 1460, the states of Bearn required that they should be forbidden to walk in the streets barefooted for fear of infection, and that they should wear upon their clothes their ancient distinctive mark, the foot of a goose or duck.

"The learned, the common people, and these wretches themselves, are equally ignorant of the sources of such hatred, and the time which gave it birth. The conjectures of the one, and the fables of the other, have this in common, that they go back alike to the darkest epochs of our history, and advert alike to the ravages of the leprosy; but, before the attempt of M. de Gebelin to account for the astonishing conformity of fortune and name which embraces people divided from each other by such distances, there was no approximation of them even thought of; and the possibility of such approximation must henceforth be the touchstone of every system which has for its object to explain the origin and fate of these hordes, if so they may be called.

"In fact, the Cagots of all France have a common origin. The same event has confined them all in the most remote and desert spots; and, whatever this event may be, it must be such as will account for every thing; it must be great and general; must have impressed at once upon the whole of France the same sentiments of hatred, have marked its victims with the seal of the same reprobation, and have disgraced the race, and all its subdivisions, with the opprobrium of a name which every where awakened the same ideas of horror and contempt.

"But little reliance, then, can be placed on the account which makes them to have been descended from lepers, banished the society of men. Lepers have been banished or confined, but have neither been sold, nor left by will, nor given away. And even

should it be true, that the Cacous of Britanny were the white lepers of the time of Ambrose Paré, he may have described their state without having proved any thing respecting their origin.

"Neither does it appear more probable that they are the descendants of the Gauls, reduced to such a state of degradation by the barbarians who usurped the place of the Romans. We are perfectly well assured, that, under the Goths and the Franks, the condition of the Gaul and Roman had no relation whatever with a state of slavery and infamy, and what we have to explain is aversion, not tyranny: the slave is oppressed, but the Caget was driven away: we must account for motives of contempt and vengeance, not the despotism of a conqueror. Such victory as may have terminated the conflict of two nations, equally ferocious, and inflamed against each other by a long state of rivalry; the invasion of one barbarian punished by another barbarian; the re-action of the oppressed against the oppressor, at last completely disarmed; bloody combats, disastrous defeats; such only could have been the sources of the hatred and fury which could have given rise to miseries like those which we behold.

"But where are we to choose, or on what can we fix in such a period? What combat was the most bloody? What nation the most unfortunate? In what way can we distinguish between the races of the conqueror and those of the conquered, in such a series of confusion?"

The writer then offers a number of opinions concerning the race of natives or barbarian invaders who, by conquest or some other cause, became thus the degraded slaves or outcasts of the whole country between the Alps and Pyrenees, and are found the most numerous in the vallies formed by those mountains. Here we shall not follow him, because all ends in conjecture; and the only conclusion, if any, is, that they were a mixed race of subdued Goths, of Alans, and of Arians: after which he assigns the following as the probable causes of their degeneracy:

"The refusal of the sacraments of the church, and of the right of burial, was the natural consequence of the resentment of the clergy, who had been for a long time persecuted. Being Arians, they were banished from the communities of men, because they were heretics, and not because they were lepers. They became lepers when a successive degeneration, the natural fate of a race devoted to poverty, had naturalized disease among them. By degrees, indeed, they fell in with the faith of the church; but the faith of the church could not regenerate their race in its priatine purity. They ceased to be Arians without ceasing to be lepers, and ceased to be lepers without ceasing to be the prey of those diseases which are engendered from a vitiation of the blood.

"The feudal institutions, which became the government of the barbarians, as they sunk still deeper into barbarism, were no longer contented to divide the land with the cultivator, but appropriated the person together with the soil; and the Cagot, among a race of slaves,

slaves, because a slave of the very lowest condition. The common people, indeed, re-acquired, in some degree, their rights; but the Caget for his part had only the shadow of liberty, and remained in a state of dependence, so much the more miserable, as in the number of his tyrants he no longer had a master who provided for his wants.

"Such, then, is the destiny of a nation which overturned and founded empires; upon whom the last remains of its particular opinions have drawn down a greater vengeance than even the remembrance of its usurpations. The whole nation of the Goths, exterminated in battle, or mingled with the inhabitants of the country, have disappeared from France and Spain; a proscribed cast is all that we can find of them; and under features, degraded by twelve centuries of misery, is it that the last remains of Gothic pride are buried. A livid complexion, deformity of feature, the stigmata of disease; such are now the characteristics which distinguish the posterity of a race of conquerors; for every vestige of their former appearance must now be extinct, excepting, perhaps, some few traces of a foreign make, which the degradation of their species has not entirely destroyed, because such configuration can only yield to the mixture of a people with others, and not to their misfortunes.

"I have seen some families of these unfortunate creatures: they are insensibly approaching the villages from whence they have been banished. The side doors by which they enter the churches have become useless, and some degree of pity is mingled at length with the contempt and the aversion which they formerly inspired; notwithstanding this, I have met with retreats in which they still apprehend the insults of prejudice, and await the visits of the compassionate. I have found among them the poorest beings, perhaps, which exist upon the face of the earth. I have seen among them creatures whom society has not been able to render so vile as it has attempted to make them. I have met with brothers who loved each other with that tenderness which is the most pressing want of isolated men. I have seen among them women, whose affection had a somewhat in it of that submission and devotion which are inspired by feebleness and misfortune. And never, in this half annihilation of these beings of my species, could I recognise, without shuddering, the extent of the power which we may exercise over the existence of our fellow; the narrow circle of knowledge and of enjoyment within which we may confine him; the smallness of the sphere to which we may reduce his perfectibility. Alas! if there exists the benevolent being, who, in comparing man with his actions, and beholding before what objects of fear and desire he is prostrated, who, in imagining what he might be, and observing what he is, the sport of his legislators and conquerors, has not started as from the dreams of a fearful sleep, and sprung towards a futurity unapproachable by violence or error, towards a futurity where he who created us to feel has reserved for the unfortunate, and the insensate, that inviolable portion of happiness which they should

should have enjoyed,—of truth, which they should have known; if so many miseries for such a mind have not their recompence, and so many tombs are shut without return on so many who have been unfortunate, alas, how much is such a being to be pitied!"

Such is the description of a race of men dwelling among the most refined of nations, and in a country more visited, and the inhabitants of which have been oftener described, than of any other part of the globe. Yet, though their existence as a separate race is traced with certainty for at least 1500 years, till now they have never been known by name, nor their origin even conjectured. Of the goître of Switzerland, indeed, every traveller gives us some account; but we do not recollect more than one writer who has conjectured that this deformity has become so general in those regions by a seclusion from the rest of mankind, and by perpetual intermarriages. We are not certain that this writer ever saw the people concerning whom he offers this conjecture, and can hardly suppose he would have taken his opinions from M. Ramond's work without acknowledging it; yet it is fair to remark, especially as our pages are open to explanation, that the *translation* from which we have transcribed is dated 1813. At what time the original was published, we are entirely ignorant.

Account of a Fall of Uranolytes (*Aërolites*) *near Agen;* by M. De Saint Amans.

On the 5th of September 1814, a few minutes before mid-day, the wind being northerly, and the sky perfectly serene, a violent detonation was heard in the communes of Montpezat, Temple, Castelmoron, and Montelar, situated in the first, second, and fourth *arrondissemens* of the department of the Lot and Garonne. This unusual detonation was immediately followed by three or four others at an interval of half a second successively; and finally, by a rolling noise at first resembling a discharge of musketry, afterwards the rolling of carriages, and finally, that of a large building falling down. These detonations, which took place towards the centre of the department, were heard with more or less intensity within a circle of several leagues. Thus at Agen, four leagues off, they were sufficiently strong to alarm some persons, and the concussion of the air was such as to shake the doors and windows of certain houses; while at Paymirol, two leagues to the eastward of Agen, these effects were less sensible; and at Mezin, St. Macaire, Basas, and Condon, situated five or six kilometres from the focus of the explosion, it was heard in a very indistinct manner.

At the end of this phenomenon, which, considering the state of the atmosphere, could not be occasioned by any storm, we were led to expect a fall of these meteoric stones, which has always been preceded by similar detonations. We soon learned, in fact, that this fall, accompanied by a kind of lightning, had taken place in the communes above named. From the written and verbal reports

ports which have reached us, the number and volume of these stones appears to have been considerable. Some were sent to the prefect, who has communicated them to the minister of the interior: others were distributed among the curious in various parts of France, while many were picked up by the peasants and venerated as reliques. Two are mentioned as weighing eighteen pounds each. It seems that they were not found warm at the moment of their fall: the heaviest were sunk into a compact soil to the depth of eight or nine inches, and one of them rebounded three or four feet from the ground. It is added, that these stones fell obliquely, making an angle of from 65 to 70 degrees with the horizontal line; finally, that they diverged in their fall, affecting various directions in the different communes where they fell. Like all those which have come from similar meteors, they appeared to be fragments of more considerable masses, and are perfectly homogeneous. All the specimens of these stones which I saw, present no character to the eye which distinguished them from those which I have hitherto had occasion to examine, or which I have in my cabinet: they merely seemed to be more friable and more porous than the latter. I have remarked in some fragments globulous bodies, similar to those which Mr. Howard found in a great quantity in the uranolites of Benares, and which are composed, according to him, of abundance of silex with a little oxide of iron. We observed also in the interior of those stones, that the pyrites which they contain are sometimes crystallized in a group. All of them are covered externally with a black crust, of the thickness of a quarter of a line nearly, which announces the action of fire, as we see in all the stones of the same kind. Two of our correspondents inform us that one of them exhibits singular impressions at the surface, but it is necessary to verify this.

In fact, of all the peculiarities which the phenomenon presented, the most remarkable is the very simultaneous appearance of a small cloud, which seems to have accompanied the meteor, and even to have preceded it a few seconds. This small white cloud, grayish in the centre, appeared to move with the greatest rapidity over the district where the meteor fell. In other parts, and particularly from the spot where I observed it, it seemed stationary before the explosion. It has been generally admitted that this small cloud had a roundish form. Scarcely was it perceived in the communes where the uranolites fell, when the explosion, accompanied by lightning, was heard. At the very instant the cloud appeared to be divided into three or four parts, which were rapidly precipitated towards the ground, leaving behind them irridations of a blueish colour, and the extremity of which was red. From the position which I occupied, it was seen directly in the north, inclining a little to the north-west. It seemed then to be immoveable; but, at the moment of the detonation, it seemed to advance very rapidly towards the south, forming two points which were prolonged in the sky, and which the peasants unanimously compared

pared to long cords. After this sudden movement, the small clouds, which had attained nearly my zenith, considerably diminished, stopped, became immoveable, and ended by being insensibly dissolved at the same place. It cannot be doubted, I think, that the instantaneous appearance of this cloud, insulated in a sky absolutely deprived of all vapour, is connected with the meteor. It has been observed under the same forms nearly in every place where the detonation was heard, and its immoveability, notwithstanding the strong wind which then blew, proves that it must have been very high in the air. We cannot, I think, refrain from regarding it as the produce of the gases emanated from the stony mass, which, when heated by the friction which it underwent in traversing the atmosphere, allowed them to escape under the form of a condensed vapour. The nebulous appearance which resulted must have given rise to several optical illusions on the part of the spectators, who, before the explosion, had no interest in observing it. To those who were close to the place where it fell, it seemed to move with a great rapidity: to those who were, like myself, four or five leagues towards the south, it appeared stationary. In advancing directly opposite to the latter, it must in fact have appeared to them without motion, until the explosion made it assume another form, and until, as it approached their zenith, they must have perceived its progressive motion. This cloud must, therefore, have been the result of the gases developed in the bosom of the mass, which must have in the first place formed around a spherule of vapours, and which, being more and more rarefied, as the mass approached the surface of the earth, must have caused its explosion.

To conclude: this explosion must have been effected, as I have already said, in a high region of the atmosphere, since the wind had not reached the small cloud, and since the fragments of the mass were dispersed, diverging over four communes in a radius of five great quarters of a league. If similar clouds have not always been remarked simultaneously with meteors of this kind, since they have been observed with care, this has arisen from few of those meteors having been seen in such a serene sky, and other clouds must have been confounded with the peculiar cloud which accompanies them.

Here let me direct the attention of my reader for a moment to the term *aërolite*, which is commonly given to meteoric stones. This denomination does not seem to be the best which may be employed. In fact, it is far from certain that these stones are formed in the air or with air. The elevation of the meteor which produces them having been observed to be at least thirty leagues from the surface of the ground, proves that they have nothing in common with the fluid which supports life on the surface of our globe. The name of *uranolyte* has long appeared to me to be better suited to bodies whose origin is unknown to us, but which tend towards the earth through that boundless space in which the stars move,

and which is unanimously called the heavens. The term, therefore, which is formed of the Greek words ουρανος and λιθος, deserves the preference to *aërolite*, as being more definite. Some writers have even adopted the term *uranolite*, since the publication of a Memoir which I read to the Society of Agriculture, Arts, and Sciences of Agen, in 1803.—*Annales de Chimie*, tome xcii. p. 95. Oct. 1814.

Answer to Mr. R. Phillips's Animadversions on Mr. Hume.

To Dr. Thomson.—(From the *Annals of Philosophy*.)

SIR,

Your correspondent, Mr. R. Phillips, affords another example of human imperfection, that we are all "prone to complain" and often to publish too, without any reason or foundation.

Much of his valuable time, and more than nine-tenths of his letter to you, might have been spared, had he only looked into one of the volumes of your own System of Chemistry. There he would have found, that, instead of dashing into a stream of words, studied expressions, and polished sentences, you have, in a single line, said all that was necessary to correct where there was assuredly on my side no intentional plagiarism; for, speaking of the super-sulphate of barytes, you say in a note, "Mr. Hume has also mentioned it, but the fact was well known to chemists." To your decision I have long ago assented, and have also abandoned all claim to priority respecting the super-sulphate of strontian, after I found that Mr. Clayfield, of Bristol, had anticipated my observations.

Mr. R. Phillips is equally unfortunate in the two experiments quoted from M. Sage; he has drawn inferences diametrically opposite to those of all the chemists who have written upon the subject, especially those of France. In these experiments there is neither *water of solution* nor *water of crystallisation*; there is no guide to direct future operators to avoid such errors as I shall presently quote; nor is there any room for asserting, that putting a quantity of *carbonate* of barytes into either of the two acids, although it be granted that in such a case it must be converted into a nitrate or muriate, is precisely the same as adding these salts or more particularly their solutions to the respective acids. There is nothing here to invalidate what I have said on the subject; nothing detailed by M. Sage to show the direct meaning and tendency of the instructions which I took the liberty to offer, and which may be thus epitomized:—*That such is the avidity of nitrous and muriatic acid for water, that they will attract even the whole of the water of solution from their respective barytic salts.*

When I published my paper upon this subject, it had been a common practice to ascertain the purity of nitrous acid, and even to purify it, by dropping into it a solution of nitrate of barytes; and this method was pursued by some very eminent professional men.

ment. I recollect one case in which a gentleman, well known as a chemist and mineralogist, condemned some nitrous acid which had been sent to Sir John St. Aubyn, which, on my pressing the error, was not returned. This happened above 14 years ago, and consequently was subsequent to M. Sage's experiments. Indeed, from the letter to you, I have no doubt but Mr. R. Phillips himself has often committed the same blunder.

That M. Bouillon-Lagrange did not benefit by M. Sage's example as he might have done by mine, will be evident to Mr. R. Phillips by the following sentence from Manuel d'un Cours de Chimie: "Ce sel (nitrate de baryte) est utile pour reconnaitre la presence de l'acide sulfurique. On peut s'en servir pour separer cet acide, qui se trouve quelquefois dans l'acide nitrique, et qui empêche de l'employer dans des experiences exactes."

I shall select another case, out of a great many I could name: it is that of Dr. Swediaur, who, as well as M. Bouillon-Lagrange, must have been even personally acquainted with M. Sage, and could not be ignorant of the story of carbonate of barytes in the acids, which may now be called Mr. R. Phillips's fable. In order to divest nitrous acid of sulphuric acid, the doctor prescribes the following plan. Let a solution of nitrate of barytes be added until there be no more precipitation, "donec nihil amplius precipitetur." I trust this experiment will be closely examined by Mr. R. Phillips, and that he will favour your readers with the result, the *nihil amplius*; and, for my own part, it is of no moment in this experiment whether the acid contain sulphuric acid or not, for I will venture to predict that the experiment will prove equally amusing to Mr. R. Phillips or to any other operator.

Discoveries and improvements in science invariably precede the dates of their being presented to the public, depending on the disposition, convenience, and pursuits, of their authors, and various other causes. In my own case these intervals have generally been of many years, and that particularly of employing *silver* as a test for *arsenic*, and asserting its superior efficacy, was not published until above 20 years after I had discovered it. It occurred to me while examining certain materials used in the preparation of carmine, and its utility was more distinctly evinced in subsequent trials, especially while analyzing a metallic ore belonging to the late Judge Buller. I might indeed appeal to many living witnesses that I am not so forward to tease the public with my writings as Mr. R. Phillips would insinuate. The Journals of the Royal Institution will bear testimony that I can prefer a *private* communication. I am unwilling to bring names forward on this occasion without permission of the parties; but I can recollect one case in point, and not unlike one of the experiments of M. Sage, which took place more than ten years before my remarks on barytes were published. Few philosophers have contributed more effectually to the Philosophical Transactions than the gentleman to whom I now allude, and he probably has not forgotten the short conver-

sation that passed in his library, at that time in the same street and very near to my residence, on our inspecting a vessel containing carbonate of barytes in powder mixed with nitrous acid, and in a state of apparent quiescence. I am persuaded that this gentleman did not then consider me at all ignorant of any thing respecting M. Sage's experiment, or that I did not know in 1792 what I published in 1802 respecting barytes.

The two physicians to whom Mr. R. Phillips alludes, cannot be more respected by him than by me; their reputations stand very high, and most deservedly so; they need no panegyric from either of us, and can fight their own battle; therefore any allusion to them on the present occasion is both irrelevant and intrusive. Such an interposition is more benefitting an hireling than one in pursuit of the truth, and there are various ways of engaging such characters; for even flattery, ambition, malevolence, or jealousy, is often as effectual a stimulus as any thing of a pecuniary nature.

I shall now expect to be told that I have also been forestalled respecting my test for arsenic; that the arseniate of silver, the *brick-red* coloured compound, had been prepared by others; that it had been formed before I was born, having been found in the laboratory of that busy old being Dame Nature; that Henckel, Bergman, and others, can bear testimony to the fact; and that M. Klaproth had frequently got hold of it, analyzed it, regenerated the same compound by means of nitrate of silver; but was so cruel and unlucky as to disregard the silver as a *test*, always preferring the *acetate of lead*, even to the end of the second volume of his valuable Analytical Researches; thus depriving Mr. R. Phillips of another theme for his peevish effusions.

Upon the whole, sir, and from the last paragraph of the letter, I think your correspondent writes more from principles of enmity and revenge than from a desire to improve science; and, as he seems to hold out a threat, I must be prepared to repel such attacks as I may now expect from one who is capable of treating me with so much malice and so little candour.

I remain, Sir, your obedient servant,

Jos. Hume.

Long Acre; Dec. 12, 1814.

CRITICAL

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Edinburgh Medical and Surgical Journal, No. XLI. for January 1815.

OUR wish being to preserve a faithful register of every transaction in the healing art, we return now to that kind of notice of the Edinburgh Journal with which we commenced on its first changing its form from the Annual Commentaries to a trimestral publication. By reserving the whole for our review department, we are so enabled to condense its contents as to find room for that quantity of matter which now flows in upon us from all quarters, and obliges us to economise room in order to complete our promise of an Universal Medical Gazette.

The first article is a paper, by Professor Colles, on the Operation of tying the Subclavian Artery. This we should have perused with much more satisfaction, had the operation succeeded in a single instance in which it was tried. We mean not to condemn the attempt; on the contrary, we conceive nothing more laudable than a bold undertaking in a case which must prove fatal without speedy relief. We shall not offer any epitome of the operation, or the subsequent symptoms, as these will be carefully examined by any surgeon who may hereafter make the same hazardous attempt. The first patient, for whom it was tried on account of aneurism in the right subclavian artery, lived to the ninth day after the operation, and the following are all the appearances which could be ascertained after death.

"In a few hours after his death, we hastily removed the heart and large vessels, so low down as the clavicle, being prevented, by the attendance of his friends, from examining the parts *in situ*. No blood was effused into either cavity of the thorax. The lungs of both sides were sound; the upper extremity of the right lung had a slight adhesion with the parts in the vicinity of the ligature. The aorta was slit up from the heart to the forking of the arteria inominata; and thus we had an opportunity of observing the very diseased condition of the coats of this artery, as manifested by the wrinkled state of its lining membrane. A very remarkable pouch or recess, capable of receiving the point of the little finger, appeared

peared in the wall of the aorta, on the right side of the artery, about one inch above the heart.

"In the apex of this dilatation, the coats of the artery were extremely thin, as if the middle coat, having been removed by absorption, the lining and outer coats had adhered together. The arteria innominata was dilated at the place of its forking. Between this dilatation and the aneurism for which the operation had been performed, there was not above a quarter of an inch of the subclavian artery free from disease, and on this part the ligature had been applied. A pretty large opening had been made by ulceration, through the coats of the artery, immediately above the ligature."

The examination of the next case is not less worthy of notice, as the subject died without undergoing the operation.

"The next case of disease requiring the operation of tying the subclavian artery, occurred in William Levance, an invalided soldier, who was affected with aneurism of the axillary artery a little below the clavicle. The disease seemed to have arisen spontaneously. Tumour was the size of a pullet's egg at the time of his applying for relief.

"In full consultation, the operation was decided on; but this man refused to submit to it, unless we assured him of complete success. He lingered for some months, and appeared to die, not from hæmorrhage, but rather from extensive suppuration, and long-continued irritation.

"*Appearances on dissecting the Body of William Levance, ætat. annos* 55.—26th April, 1813. Very considerable swelling occupied the right side of the body, extending from the clavicle down to the eighth rib, and from the nipple of the breast across the arm. The arm and fore-arm were very much distended by an œdematous swelling. Three large ulcers a little below and before the axilla; inferior costa of the scapula rough on its internal surface; the inferior angle of this bone exposed and rough. On opening the thorax, the viscera were found perfectly healthy, with the exception of slight adhesions of the right lung to the pleura costalis, and some water in that side of the chest. Heart rather small, but appeared perfectly healthy. Large arteries near the heart not at all dilated, and no other traces of disease in any of them than some very small opake spots visible on their internal coats.

"The pectoralis major was of a pale brown colour, and much thinner than natural; the pectoralis minor converted into a substance resembling a strong fascia. The parts above the clavicle were still in a healthy state; the different steps of the operation for tying the subclavian artery before it had reached the scalenus were performed on it. The trunk of this artery was traced of natural size and healthy texture, for an inch and a half below the origin of the vertebrals, and running over the front of the aneurismal tumour. At this place, its coats became so thin, that it was no longer possible to distinguish them from the coats of the tumour.

Immediately

Immediately before it became indistinct, this part of the artery seemed dilated to the breadth of a quarter of an inch. The articulation of the humerus was opened, and communicated with the aneurismal tumour. The branches of the subclavian artery did not appear at all enlarged. The basilic vein was thickened in its coats, but not at all enlarged in its diameter."

Of the next case the particulars could be collected with more accuracy, as the subject was a clergyman, and in that rank of life in which every ailment is early attended to. As far as we can learn, the first symptom was numbness in the right arm, enlargement of the hand, or a sensation like it, and afterwards pain about the middle of the fore arm, or insertion of the deltoid muscle. On examination, no pulse could be felt at the wrist. The patient, being considered rheumatic, was electrified; and it was only by the obvious heaving of the chain, as it accidentally lay on the breast, that the disease was first suspected, and instantly discovered; the tumour below the clavicle was found about the size of a goose's egg. Near a month intervened before the operation, though determined on, was undertaken, for many obvious and important reasons. Here also we shall pass over the description of the operation, which is minutely, and, we doubt not, accurately detailed. The patient lived about four days, and the following is the account of the appearances on dissection.

"Suppuration was established under the integuments on the fore-part of the throat, anteriorly to the sterno-mastoid muscles. On the thorax being laid open, we discovered an appearance as of suppuration commencing on some masses of fat lying in the anterior mediastinum. The upper lobe of the right lungs was attached to the ribs by close and old adhesions. Between three and four ounces of water were found in the pericardium. The jugular veins, both the external and internal, were of a deeper colour than usual. Heart felt rather soft; right auricle full; right ventricle less full than usual. No disease in any of the valves on either side of the heart. The internal surface of the right auricle, especially on the septum of the auricle, more red than usual. This redness, though of a brighter tinge than that of the jugular veins, was not such as to indicate the existence of inflammation of this cavity. The venous blood was more fluid than usual. Coagula were found in the right and left ventricles, but not uncommon either in their size or other properties.

"On endeavouring to separate the aneurismal sac from the walls of the thorax, it was found to have connected itself so intimately with the second rib, as to have its cavity laid open by an attempt to dissolve them. The form of that portion of the bone upon which the aneurism rested, was changed from a flat surface to a cupped

capped form. The extent of the altered part of the second rib was about half an inch.

"The aorta, with the great arteries springing from its arch, and the humeral artery, being removed from the body, were examined next day.

"The aneurismal tumour had extended more in length than in breadth, and had ascended so high as to have reached near to the spot on which the ligature had been applied. The aneurismal tumour was nearly as large as a pullet's egg.

"The artery immediately above the ligature was seen thrown into folds and furrows, which would seem to be the inevitable effect of tying an artery of so great a size. On removing the ligature, and slitting up the artery, its internal coat was found ruptured by the ligature only at one part, to the extent of about one-fourth of its circumference. Through the remainder of the circle, the internal surface of the artery presented a white line, obviously produced by the tightening of the ligature. Two very small portions of coagulable lymph were found immediately above the ligature. The trunk of the artery below the ligature was rather small. The branches of the subclavian artery were not at all enlarged."

Some very judicious remarks follow, which, for the reasons before mentioned, we shall not transcribe. We cannot, however, omit the paragraph with which Dr. Colles closes his paper.

"When an aneurism of the axillary artery shall require this operation, we may indulge a confident hope that the rest of the arterial system is free from disease, as it appears to have been in two of the foregoing cases, that of Levanee, and of the Rev. Mr. S.; one, where the disease arose spontaneously,—the other, where it could be traced to accidental injury. Although this operation has not yet proved ultimately successful, yet I think we should not despair. The history of surgery furnishes parallel instances of operations, now generally adopted, which, in the few first trials, failed of success.

Art. II.—*Observations on the Fœtal Liver.* By James Bryce, F. R. S. E. &c.

Here are nearly ten pages to show how cleverly it is managed that the fœtal liver shall be large. Even in Haller we are often weary of the politeness with which he compliments a first cause in managing so well for us. Nor can we easily forget how, in this determination to praise every thing, the Baron went a little too far. "The testicles," says he, "remain in the abdomen till after birth, lest such important organs should be injured in the passage of the child into the world." It must either be a strange sort of presentation, or very clumsy management in the midwife, that should render this provision necessary; and accordingly immediately afterwards

wards another anatomist shows that they are in the scrotum a month or two before birth. But what most dissatisfies us with this tedious paper is, that the final cause can never be ascertained with any certainty, and it can lead to no practical purpose.

Art. III.—*Reply to the Review of Mr. Baynton's Essay on the Cure of the Crooked Spine in No. 39 of this Journal.* By Henry Earle, Surgeon to the Foundling Hospital, &c.

We shall take an opportunity of comparing the original work, and both these reviews, before we offer our opinion on this article.

Art. IV.—*On the Relation subsisting between the Time of the Day and various Functions of the Human Body; and on the Manner in which the Pulsations of the Heart and Arteries are affected by Muscular Exertions.* By Robert Knox, M.D. Edinburgh.

This is a very ingenious and useful paper. As it is unfinished, we shall defer our closer remarks till we see the whole. We hope, however, we may be in time to offer a few hints to the writer. First, we ought to recollect the vast variety we meet with in the human constitution. Respecting the period of the day at which a man may be said to be in his most active condition, (we do not say, "when he has the greatest capabilities," an expression which we hope not to meet with from Dr. Knox hereafter,) some men boast that they never eat their breakfast till they earn it, others complain they can do nothing before that meal; some are fit for business all the morning, others only in the afternoon, and some not till midnight. It is probable that habit may have its influence, as the more fashionable part of the world, particularly females, are often in a state of listlessness till night, when they appear renovated even before they are recruited with stimulating diet of any kind.

Another hint we would offer, relative to an interesting case related in the course of the paper. The body, we are told, continued warm three hours after death, (that is, we suppose, comparatively or sensibly warm to the person who applied his own hand to it,) yet almost every part examined was filled with black blood, and the passage of the blood through the lungs was imperfect. On this we say no more than to offer it to Dr. Knox's speculation; and also, whether he finds the sensible heat of the body, in a state of health, at all influenced by the number of arterial pulsations. These remarks are only proposed to an ingenious writer, that he may use them, or not, as he finds them connected with the object of his experiments, for the result of which we wait with much interest.

Art. V.—*Observations on the Impropriety of returning the Hernial Sac unopened into the Abdomen.* By HENRY EDMONDSTON, Surgeon, Newcastle-upon-Tyne.

These observations are not destitute of merit; yet we cannot help expressing a wish that Mr. Edmondston had discovered, before he came to a conclusion, how much he was anticipated by the first Dr. Alexander Monro in the Edinburgh Medical Essays, a work we wish every one to look into for some of the earliest improvements of practical surgery, particularly the papers of that justly celebrated professor.

Art. VI.—*Case of Hydrophobia, which occurred in the Regimental Hospital of his Majesty's 1st Foot, or Royal Scots.* By GEORGE BALLINGHALL, Assistant-Surgeon.

Another melancholy instance of the refractory nature of this disease! Blood-letting had a tolerably fair trial; but, in our opinion, there are two things in which, should a case occur in our practice, we should conduct it differently. First, the patient should be bled in a recumbent posture. In an erect posture, with the sight of the blood, or without it, no one can say how soon even a soldier may faint. In the next place, as mercury was given, if we recollect, in both the supposed successful cases, we cannot reconcile ourselves to its omission. In the same climate, mercury is given for the liver complaint; but it is often necessary to bleed at the same time; and, should that bleeding be carried to any extent, it is never conceived justifiable to omit the mercurial process. All this will be considered only as hints, and not at all to lessen our obligations for the communication, which, though less valuable, has a greater title to our acknowledgments than a cure.

Art. VII.—*Account of Two Trials for Child-Murder.*

These cases, though proper to be recorded, can only be interesting in the neighbourhood in which the events happened, and the legal process followed.

Art. VIII.—*Case of Deafness successfully treated, by the Removal of a Splinter of Wood from the Bottom of the Meatus externus.* By JOHN STEVENSON, Esq. Oculist and Aurist to H. R. H. the Princess of Wales, &c.

The case does the writer great credit, and should be carefully perused by every practitioner. The little success usually attending every common mode of treating deafness, is too apt to render us backward in undertaking so unthankful an office. Hence causes are probably often overlooked which diligence and sagacity might discover, and which, when discovered, might be easily removed. What we have

said will be a sufficient apology for transcribing the case in Mr. Stevenson's own words.

"Lieutenant-Colonel Webbie Smith, (by whose desire the case is published with his name) of the Royal Horse Artillery, Woolwich, consulted me, on the 25th of last July, respecting a troublesome discharge from his right ear, accompanied with an almost total loss of hearing.

"The following particulars were communicated in reply to my inquiries into the origin of his complaint. A spirited horse, upon which he was riding when on duty near Bayonne, the beginning of May, took fright, and springing from the middle to one side of the road, forced his rider with great violence against some shortened branches of an oak tree, from one of which he received a most severe blow on the right side of his head. The concussion, for a while, so nearly deprived him of his senses, that it was with extreme difficulty he maintained his seat on the saddle. Immediately on recovering himself, he felt a very acute pain in the injured ear. He hastened to camp, and sent for medical assistance. The staff-surgeons found the integuments of the auricle considerably bruised and lacerated, and the concha and meatus externus filled with coagulated blood. The latter was removed by syringing with warm water, and the wound dressed. The local pain and irritation, instead of subsiding, as was expected, rapidly increased, and soon induced a high degree of sympathetic fever, with slight delirium. These symptoms were, in a few days, alleviated, principally by the formation and subsequent escape of a considerable quantity of pus from the meatus internus. After this period, scarcely any uneasiness remained, except on passing the tragus, which was invariably followed by a very pungent and deep seated sensation. This, together with the deafness and discharge, were regarded as the mere consequence of the preceding inflammation; for which the ear was regularly washed with warm milk and water, and various injections, every night and morning. On the arrival of the patient in this country, he took the opinion of several eminent practitioners, and was subsequently recommended to me. An attentive inspection of the organ enabled me to discover something projecting from an accumulation of matter at the farther extremity of the passage, which, by the introduction of a probe, was ascertained to be a solid and slightly moveable substance. The Colonel instantly suggested the probability of its being a portion of fractured and detached bone;—a suspicion he had constantly hinted to his different medical attendants. It was extracted with some difficulty; and, when cleared from adhering discharge, it proved to be a rough angular flat splinter of oak, five lines in length, and three in breadth; one extremity of which, being pointed, had penetrated anteriorly, and in an oblique direction, to the depth of nearly two lines between the cuticular lining and the parietes of the bony canal, close to the membrana tympani.

Some very judicious remarks follow, with a reference to

other records, which, in the multiplicity of surgical works, are likely to escape all who do not purposely search for them.

(To be continued.)

Anatomie et Physiologie du Systéme Nerveux en General et du Cerveau en particulier avec des Observations sur la Possibilité de reconnoitre Plusieures Dispositions, Intellectuelles, et Morales de l' Homme, et des Animaux, par la Configuration de la Tete. Par F. I. GALL et G. SPURZHEIM.

Anatomie et Physiologie du Systéme Nerveux en General et Anatomie du Cerveau en Particulier, 1 vol. Paris, 1812.

Physiologie et Cerveau en Particulier. 12mo. vol.

So long ago as the year 1805, (see our 14th vol. p. 327) we gave a tolerably distinct view of Dr. Gall's Craniology. At that time, our communication with the continent was uninterrupted, and, though the doctor had published nothing himself, we are pleased to find our statement was correct. In the following year, (vol. 15, p. 201,) we were enabled to offer a diagram of the skull in three different views, to illustrate the doctrine which was attended with something like an official report from the House of Correction and Hospital of Torgau, in Saxony. At that time, we could only transcribe reports, which we were careful to do without any comments. In the year 1809, if our readers will turn to our 21st volume, page 149, they will meet with as much as could at that time be collected of Drs. Gall and Spurzheim's opinions, and of their mode of dissecting the brain. Imperfect as that report was, it derived much consequence from the names affixed to it, and also from the minuteness of many parts of the dissections beyond what we are accustomed to in the London schools, where practical anatomy is taught with so many advantages and studied with so much diligence.

The respect with which the mode of dissection, partly taught and partly revived by Dr. Gall, was treated by the Reporters, fairly entitled the opinions, deduced from or confirmed by them, to some attention. But the unsettled state of the continent prevented that regular communication by which only a subject so new could be well understood. At length, one of his coadjutors is arrived in London, has given public lectures, and published his work in English. The question is now a matter of too much notoriety to be any longer overlooked in a Medical Journal. Dr. S. has even given practical proofs of his craneological science in a public hospital in the metropolis.

It is not our intention to enter into the metaphysical part of

of these inquiries. Such questions, though, as far as morality is concerned, they may be said to relate to all sciences, yet it is rather to their application than to the mode of learning or teaching them; and, as in a physical point of view, the structure of parts is always the first consideration, to that we shall principally direct our attention.

It appears, that at a very early period of life, Dr. Gall was accidentally directed to an examination of the external form of the head, as indicative of some peculiar mental qualities. In after-life, being destined for medicine, he examined the structure of the brain, and found that the external appearance of the cranium being modelled by the form of the brain, what appeared to him at first only a coincidence might probably be the effect of an original formation of certain parts destined for certain functions; that in proportion to the size of these parts, these functions would be more or less perfect; and also, that these parts would increase by the enlargement or increased number of vessels in proportion as they were oftener brought into action by the exercise of their particular functions.

Avoiding, as we had determined to do, all metaphysical inquiries, we shall endeavour to express ourselves in physical language in this part of the inquiry which relates to the *innate* qualities of the mind. No one who views man as he sees him in any condition of society will doubt, that, however generally the species may be said to resemble each other in intellect and senses, still there are certain differences between individuals which cannot be entirely imputed to education. Even the external senses differ in different individuals, and to each of these we know that certain parts of the brain are appropriated. Why then, it is asked, should we doubt whether the various qualities of the mind depend on particular parts of the same organ, or rather whether the brain does not consist of as many organs as there are faculties, propensities, or passions? whatever answer we may be disposed to give, we cannot surely be inattentive to the minute inquiries of an ingenious individual directed from early life to this single object.

We would not wish it to be supposed, that we are vindicating a doctrine with us at present much too crude to justify us in forming any certain conclusion. Our only intention is, to induce the medical student not hastily to condemn supposed discoveries because they are new; and, perhaps, to induce some of them to select this branch of anatomy and medicine as their peculiar study. By such a division of labour alone can it be perfected. Let us reflect with shame, if not with indignation, that the few solitary cases preserved

by

by Dr. Marshal are the first regular register which England can boast of anatomical descriptions of the brain of maniacs by a practical anatomist.

In our volume before alluded to, we gave a sufficiently general account of the manner in which these gentlemen conduct the anatomy of the brain. We shall now offer a few extracts to shew the application of their researches to the moral or intellectual faculties discoverable in the formation and magnitude of the various parts.

"One might have expected that anatomists, from observing the great diversity in the constituent parts of the brain, would have been the first to infer a division and plurality of organs for the different intellectual and moral faculties. But when we see, even at the present day, that Vicq-d' Azyr, after having presented not only a positive but a comparative view of the human brain, by commencing with the simplest structure in the insect, gradually ascending to the compound brain of man, and then as gradually descending from man to the insect, still admits but a single organ of the mind, we are taught by experience how little the simple knowledge of a mechanical structure is capable of enlightening either the physiologist, or the philosopher. It is only by attending to the phenomena of nature, and paying no regard to the pre-conceived opinions of cavilling metaphysicians, that we can expect to arrive at any more just or satisfactory ideas concerning the structure of the brain. Herder, struck with the phenomena of the intelligence manifested in different animals and different individuals, conceived the idea of a plurality in the intellectual organs, and even the hope of being at some period able to discover them, by attentively comparing different brains with their different qualities. Bonnet perceived fibres in the brain which he conceived might have different functions.

"We were employed during many years in accumulating a store of physiological and pathological facts, before we could arrive at any rational conclusion on the nature of the brain and nervous system. But to what advantage could we have turned that collection of facts, if we had not previously supposed an intimate and necessary connection with their material conditions? It was thus, that, prepared by the studies of physiology and pathology, we advanced rapidly in discoveries, to which the scalpel alone would never have conducted us. If we have at length been enabled to establish such views of the anatomy of the brain as shall withstand the progress of time, we are indebted for it, almost wholly, to our physiological and pathological ideas. It is the perfect relation between the intellectual phænomena and the material conditions of their existence, that ensures the durability of our anatomical and physiological doctrine relative to the brain and nervous system.

"It will be surely admitted that there is a great difference between asserting that the discovery of the functions of the brain was made independently of the knowledge of its structure, and that there

there exists no immediate and necessary connection between its functions and structure. Could it be said, for instance, that motion and secretion have no connection with the organization of the muscles and the viscera, or that digestion and circulation of the blood have not an inseparable relation with the stomach and heart? Have not the organs of the senses an immediate and necessary connection with the functions to be performed by them? Why then should the functions of the brain be excepted from the general rule, for the reason that its organization and functions are of a totally different order from those of the senses, or those belonging to the organic life?

"Any doctrine respecting the functions of the brain, which could be shewn to be in contradiction to its structure, must be false. When any one shall prove that the brain is composed of glands, as an organ of secretion or excretion, it may then, unconnected with any superior function, be ranked with the other organic viscera. When any one shall shew a central point of union for all the medullary fibres, and shall find a cerebral mass alike in all animals, notwithstanding the diversity in number and quality of their faculties, then will the system which maintains a plurality of organs be satisfactorily refuted. If any one shall demonstrate that in different individuals of the same species, notwithstanding the distinctions in their common faculties, the brain shall present an invariable identity in its constituent parts, we shall then no longer assign a seat to the different organs, by comparing their physical development with the intellectual energy. But if, on the other hand, it is an invariable truth, that animals without intellect are also without brain, being provided only with inferior nervous systems, for the supply of the organic viscera, and that these systems are multiplied according as the vegetative or organic life is more complicated; that any faculty of the animal life, as instinct, propensity, intelligence, can only exist in conjunction with brain; that the constituent parts of the brain are multiplied and varied in the same relation and degree as the faculties; that all these facts concur in shewing the extraordinary energy in any particular faculty invariably to correspond with an extraordinary development in some part of the brain; that the derangement of any faculty is connected with a state of disease in a part of the cerebral mass, in the same way that the privation of any of the senses is produced by the existence of disease in its physical apparatus.—Lastly, if it can be shewn as a constant truth, that the brain is composed of many nervous systems, so distinct from each other, that the diversity of the origins, directions, and terminations of the fibrous fasciculi, of which they are composed, can be made evident to the senses, then it must without question be admitted, that an anatomy of the brain is established, in perfect relation to our doctrine of the functions; and the metaphysician will be no longer justified in wandering abroad in vague speculations, by asserting that the operations of the mind are too obscurely hidden to allow of our discovering the material form which indicate such operations."

This

This is all the notice we shall at present take of this new system of physiology and pathology in an organ, the parts of which have hitherto only been distinguished by whimsical appellations, and the very form of which has in our own time been matter of dispute between learned and enlightened anatomists. In our next, we shall take a view of the *Physiognomical System of Drs. Gall and Spurzheim, founded on an Anatomical and Physiological Examination of the Nervous System in general, and of the Brain in particular, and indicating the Dispositions and Manifestations of the Mind; by J. G. Spurzheim, M.D.*

An Essay on Dew and Several Appearances connected with it. By WILLIAM CHARLES WELLS, M.D. F.R.S.

THIS valuable series of well imagined and well conducted experiments, with their results, is too important to be overlooked by us. When we consider the necessary daily engagements of the author, his precarious health, and the extreme diligence and fidelity with which the whole has been conducted, we cannot fail to express our gratitude for the acquisition derived from his nightly labours. All the experiments being related with as much brevity as is consistent with perspicuity; we can make no other abstract, than by giving the results and the inductions made by himself, particularly directing the reader's attention to every practical inference which may occur.

The first section is "On Circumstances which Influence the Production of Dew." For the production of dew, the author found the most favourable state of the evening was calmness of the air and clearness of the sky. In windy and cloudy weather, dew is never formed; but a small quantity may be found with wind on a clear night, or with clouds on a calm night. On a clear night, a very light breeze rather facilitates the production of dew. Dew begins to form on grass in shady places soon after the atmosphere is cooled, and continues to be formed a very short time after sun-rise, if the weather is favourable during the whole night. On smooth dense substances, the formation resembles the condensation of an evaporating fluid on similar substances. The quantity of dew, other circumstances being equal, is proportionate to the quantity of moisture with which the atmosphere is loaded; consequently it is for the most part more abundant in westerly and southerly winds, with a favourable state of the atmosphere and sky. From hence the author offers a proposition which, we believe, is not universally admitted by practical meteorologists: namely, that dew is less abundant during a long series of dry weather.

weather. It must, however, be admitted, that this is so rare in England as to render any conclusion very difficult; it must be added, too, that the author does not speak of any increase of dew before, but after, rain. From every aggregate circumstance, however, Dr. W. does not scruple to give it as an aphorism, that, *cæteris paribus*, there is more dew in proportion as the air is more loaded with moisture.

Secondly, Dew is more copious in those nights favourable for its production as above-described, which are followed by misty or foggy mornings.

Thirdly, In nights of the above description dew is more copious in proportion as the atmosphere is hot. This rarely occurs in this country, but is inferred from our knowledge of the capacity of watery vapour to diffuse itself in heated air, and the precipitation which follows the subduction of that heat; and, it is proved, by the observations of all travellers, during the night in warmer climates.

Lastly, All other events remaining the same, more dew was found to be formed between midnight and morning than between evening and midnight, which is imputed to the greater coldness of that part of the 24 hours.

The remainder of this section goes to prove, that the formation of dew was in all cases proportionate to the free exposure of a substance to the aspect of a clear sky, and, in many cases, to the height at which it was elevated above the ground.

The next section is, "Of the Cold connected with the Formation of Dew." On this subject, the author, after a few remarks on the general admission of poets and philosophers that dew is cold, informs us, that in all clear nights, the ground covered by grass is warmer sometimes by more than 12 degrees than the atmosphere a few feet higher, and that this difference will frequently vary according as the sky may be more or less clear from clouds. The turbidness from fog produced so similar a condition on every part, that the thermometer discovered very little difference, whether on the ground or elevated above it. He found also, by the most delicate experiments on wool and other loose fibrous substances, that the comparative quantity of dew collected on each was proportionate to the degree of cold. The increased cold on the surface of the earth was very much confined to spots covered by grass, which was often 10 or 12 degrees colder than gravel walks or bare garden mould. The temperature of the earth, an inch or even half an inch below the surface, was found sometimes from 12 to 16 degrees warmer than the grassy surface. On the top of Dr. Wells's town house, he found wool lying on a wooden

frame colder than the surrounding air, and that it had imbibed dew. Metals also furnish another proof of the connection of dew with cold.

The remainder of this section is devoted to an examination into the capacity of different substances to acquire a temperature colder than the surrounding atmosphere.

Dr. Wells found the grass, however evenly shorn, too uncertain for his accurate inquiries. He found too that all filamentous substances cooled faster, and to a greater degree, than any others. Of all others, swan's down remaining on the skin of the bird was the most steady, and cooled the most, being in one experiment 20° below the temperature of the atmosphere above it, which is four degrees more than the most accurate philosophers have ever discovered in snow. In this and in all other experiments, it was found that the slightest opake covering of the substance considerably lessened the degree of cold.

The second part is "On the Theory of Dew." Aristotle's opinion, that dew is a species of rain formed in the lower atmosphere, has been sanctioned by no less a name than Mr. Leslie's, of Edinburgh. Dr. Wells, however, proves its fallacy, by shewing, that when bodies on the ground remain dry, others elevated a few feet will be covered with dew. Metals remaining free from dew whilst other bodies are covered with it, gave rise to an opinion, that dew was formed by electricity. Dr. W. though he admits that every change in a body is probably attended with some electric effect, yet shews, by a variety of unanswerable objections, the fallacy of the above opinions. All the other arguments, it is observed, overlook one important fact, namely, the connection of cold with the production of dew. Former writers have considered this coldness as the effect, but Dr. W. clearly proves, that when other circumstances are equal, every substance will be dewed in proportion as it is previously cooled. Some very accurate observations follow, all shewing that substances imbibing dew, or retaining it on their surface, are cooled before they receive dew, and sometimes are warmer afterwards. We cannot pursue our author's reasoning throughout, but may be allowed to remark in general, that, on the earth, the increase of cold is in proportion as the sky is more clear. That the cause of dew is the precipitation from the atmosphere of water, which it retained when more heated, and not merely the effect of a continued evaporation from the earth. Hence, that the vulgar language is, in this as in many other instances, more correct than the language of philosophy, and that dew actually falls instead of rising.

Having

Having thus shewn that bodies attract dew in proportion as they are previously cooled, the next enquiry is, why grass should attract more dew than the bare earth? or, why substances elevated a little above the grass should be colder than the grass itself? To account for this, Dr. Wells has recourse to the discoveries of Mr. Leslie and Count Rumford; by the first we learn satisfactorily, that bodies cooled or heated radiate their cold or heat; and, by the latter, that air is a bad conductor of heat. If, therefore, during the summer, the upper regions of the atmosphere are, as we now know to be the case, colder than the earth, when there is no impediment, that is, when there are no solar rays, no uncertainty from disturbed elements, no interruption to the transmission of heat or cold by radiation of either from the earth or the sky; the former will be constantly radiating its heat upwards, and the latter its cold downwards. But, air being a bad conductor of heat, whatever portion the earth may radiate, will very slowly pass upwards, even to the higher fibres or blades of the grass; hence the immediate surface of the ground will remain warmest, and the greatest quantity of dew will be precipitated on the highest surface of the grass. This difference will be still more striking in a substance not at all, or very slightly, attached to the earth, and elevated a few feet; hence fibrous substances, suspended in the air, will receive a full quantity of radiated cold from the sky, and little or none of the radiated heat from the earth.

Such is the grand outline of this valuable little performance. In this manner, too, the author accounts for the formation of ice in the East Indies, not by the cold produced from evaporation, but by the cold radiated from the sky; by the care too that is taken to prevent the communication of heat radiated from the earth, and by the necessity that is found of a tranquil state of the atmosphere for the success of the process. In this manner, also, is accounted for the non-appearance of dew on any naked part of the human body. The capacity of maintaining its own standard heat prevents that previous cooling which is necessary for the condensation of the precipitated moisture of which dew consists.

From all these facts, we may draw some important medical inferences; that a substance, however thin, interposed between the sky and the earth, may prevent the radiation of heat, or of cold, from or to the body thus covered, and, consequently, the formation of dew by a reduced temperature; hence the advantage of a canvas tent, and a covering,

however slight, to protect plants, and to prevent the congelation of water in leaden pipes.

There are some arguments to prove, that the sunbeams may heat the atmosphere in any degree of purity; we conceive this can scarcely be doubted, as far as is necessary for our author's reasoning, for whether the atmosphere is heated, or whether heat is diffused in it, is sufficient for all that is required by him. Now we conceive, that, in the calmest weather, the sun daily darting on the Atlantic Ocean, in a calm state, must suffer a reflection of its calorific rays, which, in passing upwards, must, in a certain degree, affect the atmosphere; or the surface of the water reflecting the heat, as well as light, will produce a sensible effect on every opake substance on which it strikes. When we offer this conjecture, we do it, subject to the correction of one, who has reduced every thing as far as it can be so reduced to actual experiment, and who, as far as we can judge, has overlooked nothing which may tend to the perfection of his ingenious theory.

Observations on the principal Diseases of the Rectum and Anus, particularly Stricture of the Rectum, the Hæmorrhoidal Excrescence, and Fistula in Ano. By Thomas Copeland, Fellow of the Royal College of Surgeons, and Assistant-Surgeon to the Westminster General Dispensary. Second edition, considerably enlarged. 8vo. pp. 183. Callow, 1814.

The favourable opinion which we gave of the first edition of this work is confirmed by a second edition being so soon demanded. We have now, therefore, only to notice the new matter contained in the present volume, which increasing practice has enabled the author to supply. The first addition that we observe, is the section which treats "on the consequences produced by the irregular or too powerful action of the sphincter muscles." This is a very frequent affection, yet the author remarks, and we know his reading is extensive, that he is not aware that it has been described by any medical or surgical writer. This, perhaps, may be explained by the fact, that physicians and surgeons formerly were less at a loss for subjects to write upon, than in the present age, when a trifling case, or some unexpected success from a remedy, once in use, then discontinued, and again employed, forms the subject of a considerable treatise. Some men, too, of extensive experience never write, and what they have observed during a long course of practice, unfortunately dies with them. We believe also that, though the

the affection is frequent, it seldom occurs in the severe degree in which Mr. Copeland has described it; and from its being known that he has devoted much attention to diseases of the rectum, it is likely that such cases may occur more frequently to him than to other practitioners. After commenting upon the different degrees of strength, and the variety of structure of the sphincter in individuals, and observing that those in whom the muscle is strong, are predisposed to diseases of this part, he proceeds,

"When the sphincter muscle of this powerful and extensive kind is excited, by the efforts to pass the stools, to a high degree of inflammation, perhaps there is no disease that the human frame is subject to which is more painful; its involuntary contractions are compared to the pains of labour; they frequently come on immediately, but more usually about an hour or more, after each evacuation, and sometimes continue till the succeeding one: in some instances, the complaint goes on to produce suppuration, and consequent fistula; sometimes the irritation is propagated to the neck of the bladder, and produces a retention or impediment to the urine. I have seen it, in two cases, extend up the canal, and give rise to attacks of violent cholic, and an increased secretion from the whole inner membrane of the gut, so that an evacuation of mucous cylinders, of the size of the part of the canal where they are formed, or of detached pieces of mucus, are seen mixed with the fæces; yet all this has been finally removed by the bougie. I have seen it followed by a constant evacuation of shreds of coagulable lymph, which has continued through life, and produced the greatest distress. When this substance accumulated in the bowels, it was accompanied with pain, which continued till it was discharged."

The treatment recommended by Mr. Copeland is the use of the bougie, opium, and occasional purgatives. It is a large bougie, however, on which he chiefly relies. We need hardly remark, that the introduction of a candle up the rectum is of ancient and vulgar use for obstinate constipation and contraction of the sphincter muscle. Several cases are related by Mr. C.: the following is the first, and the only one which our limits will permit us to copy.

"I was consulted by a barrister of eminence for a complaint of the rectum, which he had been afflicted with for many years. He was about forty years old, and otherwise in good health; but so slow and imperfect was the action of his bowels, that he could never pass his fæces without the assistance of a purgative medicine, and very long-continued efforts. These efforts frequently excited pain and inflammation, which disqualified him for his business for many days; but, on common occasions, a considerable portion of his time was wasted in efforts to evacuate the bowels. Sometimes he passed well-figured stools; at others, they were small, or liquid. There

There was no discharge, or protrusion of the membrane from the anus. A bougie passed with difficulty through the sphincter muscle, till it encountered the os sacrum, projecting into the pelvis; and, after some time, went on in the canal of the gut.

"On examination, the finger was compressed with great violence by the sphincter muscle, for more than two inches; that is, above twice as much as its usual breadth. I told him, that I did not believe there was any serious stricture of the rectum; but that he would obtain relief by using very large bougies only through the sphincter muscle; at least, that it was advisable to commence with this simple treatment. The introduction of the bougie gave him great pain at first, but became every time easier, and he soon experienced greater facility in passing his stools; so much, that, in two months, he was able almost to do without purgative medicines, and but little effort was required in evacuating the bowels."

A new section, containing some good practical remarks on Prolapsus Ani, is introduced; and the author has also added a section on Ulceration of the Mucous Membrane.

"The inner membrane of the rectum (he observes) is often affected with ulceration, which is more or less important, in proportion as it is extensive, and as it is situated farther from or nearer to the anus. The principal characters and symptoms of the disease also are derived rather from the part of the gut that is affected, than any peculiarity of the affection. If it is situated quite above the sphincter muscle, it excites but little pain or inconvenience, although it may have advanced to a considerable size.

"A quantity of purulent matter is passed before each stool, and sometimes without any feces accompanying it. For a very considerable time, the influence it has on the general health or comfort of life is not very striking; indeed, the disease, on this account, is the more alarming, as it has often arrived to a serious degree before it attracts notice from the pain or inconvenience it produces. When, on the contrary, the sphincter muscle is involved in the disease, there are, either from the first attack, or after a short period, very frequent and very painful tenesmus, and incontinence of stool, which keep the patient out of society, and destroy all his enjoyments. If it is confined to the mere surface of the membrane round the anus, there is usually an exudation of purulent fluid through the anus. It is often attended with, and, perhaps, produces a tendency to, prolapsus ani, from the irritation and straining it excites, and the protruded part has a bright red and abraded aspect."

"The appearance which the disease exhibits in dissection is various. Sometimes there is one large ulcerated cavity; in other cases, the rectum is studded with spots of ulceration of various sizes; but those cases which have been produced by a severe attack of dysentery, have often an extensive surface of the canal in a state of ulceration. Sometimes it has a more mild character, and

so superficial as to be visible, and within the reach of applications which will relieve it."

"In the treatment of this complaint, our means of cure are more certain and more effectual, as the disease is nearer the anus; but the necessity there is of daily performing the natural functions of the part, renders it always a disease of difficult cure. Richter has very strongly recommended the injection of a decoction of hæmatoxylum, which is sometimes used with benefit. Mercury, in small and long-continued doses, has, in some instances, been beneficial; and various kinds of mercurial applications, such as aq. calcis cum hydr. submur. or a weak solution of hydrarg. muriat. used as an injection. The expressed juice of the carrot is very generally recommended; but, I believe, more benefit is expected from it than it is found to produce. When the ulcerations approach towards the external surface, I have seen them often heal under the use of equal parts of aq. lytharg. acet. et ol. oliv. when they had resisted every other remedy for a considerable time. But the ulceration of the more interior parts of the canal is always a serious disease, often baffling all our efforts to relieve it."

Besides the new matter already noticed, we observe several additional cases of the affections treated of in this volume; and we have no hesitation in saying, that it constitutes an important accession to our knowledge of a very obscure class of diseases.

The Institutions of Physiology, translated from the Latin of Professor Blumenbach, with additional Notes, illustrative and emendatory. 8vo. pp. 260. Cox and Son. Lond. 1813.

The Institutions of Physiology, by Blumenbach, is a work well known, and has long since obtained the meed of public approbation. The original had become scarce in this country, and a translation was much wanting. The leading characteristics of the work are accuracy and conciseness; if it does not abound in curious speculations and brilliant conceptions, it is unincumbered with obsolete notions and vague conjectures. The author, indeed, has chosen to introduce a section upon the mental faculties, which might as well have been omitted, for he comprises all his information on this subject within the compass of two pages. The meanest dictionary would give the student more knowledge of the mental phenomena than he can find in the work before us. Let us, for example, adduce his account of reason, which he places last in the scale. "Lastly, reason, the most noble and excellent of all the faculties, draws inferences from the comparisons of the judgment." Bailey, in his dictionary (ed. 1751), expresses the same notion in fewer words, and in a happier manner,

manner, viz. "that faculty of the soul whereby we judge of things."

In general, the translator has done justice to the author, but in some passages he has shewn negligence, and in one instance has perverted the meaning intended, by rendering *animantibus* animals, instead of beings endowed with life. We would also reprove his frequent omission of the author's references, which are rich, and might open to the student many curious volumes. To make amends, he has added some valuable notes, which are the more necessary, as several discoveries have been made since Blumenbach wrote. As a specimen of these, we shall extract the note at the end of the section on animal heat.

"No phenomenon in living bodies is more remarkable than their peculiar temperature, and no one was of more difficult solution before the progress of modern chemistry. If two different bodies are placed in a temperature higher or lower than their own, for a certain length of time, they will, at the end of the period, be found not of the same, but of different, temperatures. That which has the higher temperature, is said to have a smaller capacity for caloric; that which has the lower, a greater capacity. To raise the former to a given temperature, therefore, requires less heat than to raise the latter to the same degree.

"The temperature of solids is more easily affected by a given quantity of heat, than that of fluids: or, in other words, solids have a smaller capacity for caloric than fluids, and fluids than aeriform bodies. If, therefore, a solid becomes fluid, or a fluid aeriform, it absorbs a great quantity of heat, though its temperature remain precisely the same. And the converse holds equally good, if an aeriform substance becomes liquid, or a liquid solid, the heat which it before contained is now (from the diminished capacity of the body) much more than sufficient for the temperature which before existed, and the temperature of the body accordingly rises.

"In respiration, the dark blood of the pulmonary artery parts with a portion of its carbon, and acquires a florid hue. This carbon unites with the oxygen of the inspired air, and forms carbonic acid, which is expired with the other constituent of the atmosphere (nitrogen or azote), which appears to have experienced no change from inspiration.

"Dr. Crawford rendered it probable, by his experiments, that the arterial blood has a larger capacity for caloric than the venous; and common air, than carbonic acid gas. When, therefore, the carbon of the venous blood unites with the oxygen of the air, and forms carbonic acid, the less capacity of this than common air for caloric, must cause an increase of temperature, but the blood having changed from venous to arterial, has acquired a greater capacity than before, and absorbs the heat given out by the carbonic

bopic acid. The blood, of course, does not become warmer, because the heat is not more than sufficient to render its temperature equal to what it was previously; and indeed it is not quite sufficient for this, for the arterial blood of the pulmonary veins is generally two degrees lower than that of the pulmonary artery.

"The body in this way acquires a fund of heat, and yet the lungs, in which it is acquired, do not experience any elevation of temperature.

"The arterial blood, charged with much heat which is not sensible, circulating through the small vessels, becomes venous, acquires a dark hue, and its capacity for heat is diminished; consequently its temperature rises: the heat which was previously latent, is, from the decrease of capacity, sufficient to raise its temperature, and is evolved. In this mode, the loss of heat which occurs from the inferior temperature in which we live, is compensated. The fresh supply is taken in at the lungs, and brought into use in the minute vessels.

"Of late, this theory has been brought into discredit, by the experiments of M. M. De la Roche and Berard, on the capacities of bodies for caloric, and by those of Mr. Brodie upon respiration. All experiments upon the capacities of bodies by heat, are very delicate, and liable to error; and the conclusions of Crawford on this point, with respect to the gases, have been disproved by the French chemists.

"Mr. Brodie cut off the communication between the brain and lungs of animals, and continued respiration artificially.* The usual chemical changes continued in the lungs upon the blood, nevertheless the temperature of the animals diminished, and even more rapidly than if the respiration had not been continued, owing, he says, to the succession of cool air sent into the lungs. He, therefore, concludes, that animal heat depends much more upon the nervous energy than upon the chemical changes of the blood. But many circumstances favour the doctrine of Crawford. In high temperatures we have less necessity for the evolution of heat, by the chemical changes of the blood and air; whereas, in low temperatures, as more heat is required, to sustain the natural degree of temperature, the chemical changes are more necessary; accordingly, in very high temperatures, the arterial blood remains arterial, as florid in the veins as in the arteries, and the inspired air is less vitiated; in low temperatures the venous blood is extremely dark, and the inspired air more vitiated. Vide Crawford on Animal Heat, p. 387, et seq.

"Dr. Crawford states, that the chemical process of respiration may, in certain cases, be the means of cooling the body. If the pulmonary exhalation is in very great abundance, it will carry off so much of the heat given out during the change of the oxygen into carbonic acid, that there may not be sufficient to saturate the

* "Philos. Trans. 1812."

increased capacity of the arterial blood; this will, therefore, absorb heat from the system, as it passes along, till its temperature equals that of the other parts. Animal Heat, p. 388.—Now, in Mr. Brodie's experiments, the influence of the brain was cut off from the lungs; these must have been weakened, and, as a most ingenious friend of the translator's remarked, the mouths of the relaxed vessels would consequently exhale vapour in great abundance, and carry off much of the heat which ought to have assisted to saturate the increased capacity of the arterial blood; this must have acquired heat from the interior of the system, and the general temperature of the body of course fell. In the animals whose respiration was not kept up artificially, what fluid was secreted must have remained in the liquid form,* and, not being carried off by expiration, could not produce that diminution of temperature which was observed in the instances where respiration was artificially sustained.

"It may not be improper to remark here, that Dr. Prout wrote a paper last year, in Dr. Thomson's Annals of Chemistry; and Dr. Fyfe published, about the same time, an inaugural Dissertation at Edinburgh, upon the variety of the quantity of carbonic acid gas formed in the lungs under different circumstances. The former found the quantity to increase from day-break till noon, and then gradually diminish again till morning. The increase took place exactly at day break. Whenever the quantity had been diminished, it afterwards rose proportionally, and *vice versâ*. It was diminished by whatever contained alcohol, by tea, depressing passions, fatigue, mercury, and probably during sleep.

"An extensive set of experiments are necessary on this point, made at different ages, in different temperaments, climates, temperatures, and under every variety of circumstances.

Here we had proposed to close our account of a celebrated and well-known work, but we cannot forbear pointing out an absurdity in the author, which his good sense ought to have enabled him to avoid. We allude to the subject of generation, a subject which physiologists, in common with young people of either sex, seem peculiarly fond of; in fact, it occupies the longest section in the present work, yet the most acute physiologist cannot exceed the common facts detailed by anatomy, unless he descends to conjecture. Blumenbach asserts,

"528. Semen has also this peculiarity, first observed by L. Ham Dantiscan, in the year 1677, of being animated by an infinite num-

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"* Dr. Le Gallois (Experiences sur le principe de la vie, 246) actually found this invariably the case. 'The lungs,' he says, 'are always found swollen, and filled with a frothy fluid,' after decapitation, or the division of the eighth pair. In his experiments, respiration was not supported artificially."

ber of small worms visible by the microscope, of the kind denominated infusoria, and of different figures in different kinds of animals. In man, these spermatic animalcules are oval, and have very fine tails. They are said to be found in prolific semen only, so that they are, in some degree, an adventitious criterion of its prolific maturity. I say adventitious, because I hope there is no necessity, after so many weighty arguments and observations, at present, to remark, that they are not the fecundating principle, and much less the germs of the future offspring."

Now, if the author does not know this to be absolutely false, he is unfit for a teacher of physiology. If the semen was *animated* with small worms, of course they must be living beings, but where and how are they generated? We conceive the act of secretion, so far from producing animalculæ, would be destructive to them, and have some doubts whether worms could exist in the slime of human semen; at all events, we would be glad to know what becomes of these worms in copulation, on the principle that nothing is created in vain. The remains of man may ultimately nourish worms, but we have yet to learn that worms contribute to the formation of man. The notion of animalculæ in semen, however, is not peculiar to Blumenbach; most foreign physiologists will support his authority. Richerand, and we should suppose a Frenchman would be tolerably correct on such subjects, observes, "Examinée au microscope, la semence offre de petits animalcules, ayant une tête arrondie, une queue effilée, et se mouvant avec célérité. Est ce à leurs mouvemens que seroit due la liquéfaction des parties gluantes et filamenteuses du sperme? Ces animalcules microscopiques ne se voient dans le liquide séminal, qu'à l'epoque de la puberté. On a cru remarquer qu'ils fuyoient la lumière, et decrit leurs mœurs, leurs habitudes, et même leurs maladies." Thus one writer copies from another, and error is propagated.

Considering the advanced state of chemistry and anatomy in this country, it is time that we had a standard work on Physiology of British manufacture.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ROYAL SOCIETY.—On Thursday the 12th of January, the remainder of Mr. Travers's Paper on the Way in which the Eye accommodates itself to the Sight of Objects at different Distances, was read. He considers the iris as muscular, and as connected with a kind of inner iris, or ring, which by its contraction increases the convexity of the lens. The eye, he conceives, is

only acted upon by the stimulus of light. Hence, he believes, that the contraction of the iris is regulated entirely by the retina. The eye, in his opinion, is fitted naturally for viewing distant objects. When near objects are viewed, the iris contracts, in consequence of which the inner ring acts upon the lens, and increases its convexity. The sensation of fatigue he supposes owing to the over-action of the external muscles of the eye, and not to any fatigue in the iris itself.

On Tuesday, the 14th instant, was the Anniversary of the Hunterian Oration. Our readers are probably aware, that by the liberality of his two representatives, Dr. Baillie and Sir Everard Home, a fund is established for the celebration of this day, by an annual oration.

Sir Everard of course delivered the first oration, which was last year. Sir William Blizard was appointed orator for the present. He began with the usual topics in honour of the art, tracing it to the Trojan war, but commencing in England in a scientific form under Wiseman, the first, who, in this country, gave a systematic work on Surgery. He afterwards enumerated with equal candour, correctness, and propriety, the names of W. Sharpe, Hawkins, Bromfield, Pott, and a few others who have distinguished themselves as writers, or improvers in the operating part of the art; this gradually led him to introduce the name of Hunter, on which he dwelt with that eloquence which the subject seemed to inspire. His conclusion in reference to Mr. Cline, who is the next in turn to deliver the oration, was peculiarly happy. The audience was very numerous, and not less respectable or attentive, and the whole scene truly impressive.

The Royal Medical Society of Edinburgh having agreed to appoint a committee for the purpose of receiving the communications of members, and of others, through their medium, who may favour the society with interesting facts and experiments in medicine, or with unusual appearances in morbid dissection, beg leave earnestly to invite the members to transmit such communications to the society as soon as possible.

The committee, consisting of six extraordinary members resident in Edinburgh, together with the four presidents, ex-officio, will proceed immediately to consider such papers as may be transmitted to them, with an ultimate view to publication.

There is not a charitable institution in the metropolis, we might, perhaps, add in the kingdom, more deserving of notice, than the *City of London Truss Society*. Beginning with the slenderest means, and in the face of two others of long standing, without puffing or any other patronage than what has arisen from the manifestation of its usefulness, it has now risen to a degree of respectability, we had almost said wealth, which could not have been within the contemplation of its early supporters. An institution cannot,

cannot, however, be wealthy which opens its arms to every application, requiring little more introduction than the distresses of the applicant. The following statement of the situation and occurrence of hernia, at different periods of life, has been extracted from the register of the patients relieved by the City of London Truss Society, within the short period of seven years:

In 7910 cases, 6523 were males, and 1387 were females.

Males.	Females.			
1469	14	Left Inguinal	4070 Inguinal	4665 Single.
2567	20	Right Inguinal		
38	246	Left Femoral	595 Femoral	
47	264	Right Femoral		
2182	10	Double Inguinal		2367 Double.
36	139	Double Femoral		
29	315	Umbilical		388
19	34	Ventral		
	1	Obturator		1
17	26	have undergone operations, all, except one, have been completely successful		43
63	72	with Umbilical Hernia have been cured without Trusses		135
62	10	with Prolapsus Ani		72
	236	with Prolapsus Uteri		236
3		with Varix of the Abdominal Veins		3
6523	1387			7910

524 patients were relieved with trusses under 10 years of age.

384	ditto,	between	10	and 20	ditto.
771	ditto,	———	20	and 30	ditto.
1286	ditto,	———	30	and 40	ditto.
1471	ditto,	———	40	and 50	ditto.
1420	ditto,	———	50	and 60	ditto.
988	ditto,	———	60	and 70	ditto.
347	ditto,	———	70	and 80	ditto.
38	ditto,	———	80	and 90	ditto.
2	ditto,	———	90	and 100	ditto.
7231					

Six females each had umbilical and double femoral hernia; 1 female had large ventral and double femoral hernia; 1 female had umbilical and ventral hernia; 1 female had ventral and prolapsus uteri; 5 females had umbilical and single femoral hernia; 2 females had right inguinal congenital hernia; 2 females had left inguinal and right femoral hernia, 1 female had left femoral and right obturator hernia; 4 females had ventral and single femoral hernia; 1 female had double femoral and right inguinal hernia.

Eleven males each had left femoral and right inguinal hernia; 9 male had left inguinal and left femoral hernia; 7 males had left inguinal

inguinal and right femoral hernia; 4 males had double inguinal and right femoral hernia; 3 males had double inguinal and left femoral hernia; 4 males had right inguinal and right femoral; 2 males had double inguinal and double femoral hernia; 2 males had ventral and right inguinal hernia; 1 male had ventral and left inguinal hernia; 1 male had umbilical and left inguinal hernia; 1 male had umbilical and left femoral hernia; 1 male had umbilical and right femoral hernia; 5 males had umbilical and double inguinal hernia; 1 male had double femoral and right inguinal hernia; 454 patients had congenital hernia; 1 male had very large varicose veins on the abdomen.

From the report of Mr. Tauntón, Surgeon to the Society, it appears that this malady exists in one person in eight through the whole male population of this kingdom, and even in a much greater proportion among the labouring classes of the community, in manufacturing districts, particularly in those persons who are employed in weaving, or on the water as boatmen.

In one district in the western part of England, comprising 200,000 inhabitants, it has been ascertained, by actual observation, that upwards of one in five of the whole population labour under this malady.

Mons. Des Genettes has described, from his immediate observation, an effect of cold hitherto little known. It acts intensely on the brain and nerves, even when congelation has not affected any part of the body. Men who were marching with every appearance of the most decided and determined muscular power, suddenly complained of a veil covering their eyes, which soon assumed a wild aspect, and then became motionless. The whole muscular apparatus of the neck, and more especially the sterno-cleido mastoidei became rigid and fixed the head to the right or the left side; the rigidity gradually reached the trunk; the inferior extremities beat, and the unfortunate sufferers fell presenting all the symptoms of catalepsy or epilepsy. This dreadful spectacle was frequent on the retreat from Moscow.

The following formula is recommended by Mr. J. Wilson, as an excellent application for the cure of itch.

℞. Decoct. Veratri, ʒ viij.
Hydrarg. Oxymuriat. ʒj.
Potassæ. Nitrat. ʒij.
Ammoniæ Muriatis, ʒij. M. ft. Lotio frequenter utenda.

Messrs. Mashman and Barnett have recently succeeded in affecting a dog with rabies, by inoculating him with the saliva of a man labouring under hydrophobia.

A case of exudation of blood by the cutaneous pores has lately been stated to the Société Medicale d'Emulation, by Dr. F. C. Cauchoix. The hæmorrhage was active, and consequent on an attack of nephritic colic.

An Historical Fragment on the Croup; by J. V. E. Vaidy, Army Physician.—Many physicians have long thought, that the croup was unknown in Europe before the 18th century. They founded their opinion principally on the silence of writers anterior to that epoch; but some resemblance has been traced within these few years, between this cruel disease and that of which Baillon speaks, under the name of *affectio orthopnoica*. But no one has quoted an author farther back than Baillon. I partook of the general uncertainty in this respect, when I read, for the first time, the beautiful treatise of Galen *De Partibus Affectis*. I was struck with a passage which is at the beginning of this treatise, and of which I shall give the translation:—"In a little boy, who, in coughing had thrown up a thick and viscous tunic; we conjectured, that it was the interior substance of the larynx, when it forms the epiglottis. The child became well, though we did not expect it; but the voice was changed." Does not this passage afford all the characters of croup?—the subject is young—he throws up, in coughing, a portion of a membrane—the disease is of a very dangerous nature, as Galen had not much hope, and the voice was changed. That an inflammatory disease should shew itself of a sudden in a country where it was unknown before, always appeared to me a great exception to the fundamental laws of pathology. In short, all the diseases which have really appeared in Europe, at various periods, such as small pox, plica, syphilis, are cutaneous diseases; some of which are evidently contagious, and the others are supposed to be contagious. The croup, on the contrary, follows the course of common inflammatory diseases, it is sometimes epidemic, more often sporadic; and has never been known to be propagated by contagion. It follows from this comparison, that the croup bears no resemblance to the diseases, the first appearance of which can be brought to any determined period; and that it only offers the character of simple inflammation. This conclusion agrees by induction with an historical document of incontestible authority.

The other articles which we conceived most interesting, and promised for a future number, have, we find, been copied from our Journal. They are, Dr. Hossack on the stopping Hæmorrhage by Exposure to Air, and Mr. Weatherhead's Account of a Contagious Erysipelas; see our number for June last. We cannot help wishing, that the editors of the French Journals would be still more attentive to us. We refer to the continuance of their cruel experiments on living animals to ascertain the process of vomiting, and their ill-conducted enquiries concerning the itch insect. In our next number, we shall shew how much they might have learned concerning the black cataract from Mr. Stevenson's last edition.

State of Medicine in China; by M. Page, of Orleans.—The Chinese employ emetics and purgatives, but very rarely; clysters are almost never used, because they regard them as too European.

but they make a free use of cordials. The importation of opium is prohibited under pain of death.

The Chinese, in the treatment of the itch and eruptive diseases, employ camphor and cinnabar also, with sulphur dissolved in woman's milk. They make use of borax in inflammations of the throat; it is reduced into powder, and blown upon the diseased part. They borrowed the use of the bark from the Jesuit missionaries.

They were acquainted with inoculation long before us. They practise it in general by introducing into one of the nostrils cotton imbibed with variolous matter: the cotton is allowed to remain twelve hours, and in seven days at latest the disease appears.

Like most Indian nations, they make a free use of aphrodisiacs, baths, and mineral waters. They have springs saturated with alum and iron, but the greater number contain sulphur. Their physicians are not able to analyse them. Chemistry, as well as natural history, is in its infancy at China. But the Chinese have the good fortune to possess a species of *mesmerism* or animal magnetism, as practised by certain sects of illuminati in Germany. The Chinese literati strive to put down this sect by ridicule; but they, nevertheless, find proselytes daily, to what they are pleased to call the *science of sciences*.

The Chinese are not acquainted with the making of bread, for which they substitute boiled rice or maize: their wine is a strong liquor extracted from honey or fermented rice. They do not drink either coffee or chocolate: they have delicious melons, the species of which is unknown to us, some very delicate kinds of small onions, and several delicious plants; but they have no olives, strawberries, gooseberries, or potatoes.

The diseases of stone and gravel are wholly unknown to the Chinese, in consequence, as they tell us, of the great quantity of tea which they drink.

Account of some Electrical Phenomena recently communicated to the Royal Society of Edinburgh.—In the year 1767, M. de Saussure, M. Pictet, and M. Jalabert ascended to Mount Breven, which is situated nearly in the middle of the valley of Chamouni, and almost exactly opposite to Mount Blanc. Their object was to take a general view of the form and position of the glaciers which descend from Mount Blanc. When they reached the summit, M. Jalabert began to take a drawing of the glaciers, M. Pictet was engaged in the geographical part, and M. de Saussure was preparing to make his experiments on natural and artificial electricity. When M. Pictet was laying down upon his plan some particular mountains by means of a graphometer, he had occasion to ask the names of them from the guides, and was therefore obliged to point out the individual mountains with his finger. Every time that he raised his hand for that purpose, he felt at the extremity of his finger a kind of tremulous and prickly sensation, similar

to that which is experienced upon presenting the finger to a globe of glass highly electrified. M. Pictet soon perceived the origin of this phænomenon. He observed a stormy cloud in the middle region of Mount Blanc, directly opposite to Mount Breven, and it instantly occurred to him that he had been affected with the electricity of the cloud. He then requested MM. de Saussure and Jalabert to make the same experiment; and, as soon as they extended their hands, they experienced a similar sensation, which they described as resembling a number of small electric sparks; but fearing that they might be seduced by their imagination, they made their guides and their servants stretch out their hands, and they felt the same sensation. The electricity of the atmosphere having now begun to increase, the sensation became stronger, and was even accompanied with a kind of whistling noise. M. Jalabert, who had a gold band upon his hat, was alarmed with a buzzing noise about his head; and having taken off his hat, and put it successively upon the heads of Pictet and Saussure, they heard distinctly the same sound, and even obtained sparks from the golden button of the hat. The thunder cloud had now moved across the valley, and was directly above their heads. The thunder was loud, and the flashes of lightning so frequent, that the travellers found it prudent to descend about twenty or thirty yards, where no electricity could be perceived. The guides, however, were so much delighted with the experiments, that it was with great difficulty they were persuaded to abandon such a dangerous amusement. A shower of rain soon afterwards fell, and the storm ceased. The travellers re-ascended to the summit; and, although they elevated an electrical kite, they were unable to perceive any indications of electricity in the atmosphere.

Electrical phenomena, much similar to the above, were very recently observed by a party of Englishmen, when they were descending Mount Ætna during a storm of thunder and lightning. The following particulars were communicated by Mr. Gillies, surgeon, who not only read an account of the phenomena in a journal entitled *Specchio della scienza e Giornale Encyclopedica de Sicilia*, which was published in July 1814, but received an account of them from Mr. Tupper, one of the party, coinciding in every respect with that which was given in the Sicilian journal. On the 2d of June, Mr. Tupper and Mr. Lanfiar, accompanied by a guide, ascended Mount Ætna. During their descent, when at a little distance from the place called the English House, in the *regio deserta*, they were overtaken by a storm of thunder and lightning, accompanied with a heavy fall of snow; and while running over an extensive field of snow, they were struck by a flash of lightning, from which, however, they experienced no serious injury. Mr. Tupper felt a painful sensation in his back, which gradually ascended towards his head, and occasioned a sensation as if his hair was moving, an effect exactly similar to that which is produced either when a person is electrified upon an insulated support, or when his head is presented to a prime conductor of an electrifying machine.

This sensation induced Mr. Tupper to raise his hand to his head, upon which he was surprised to hear a buzzing noise proceeding from his finger. Upon raising and extending his arm, the noise still continued; but, upon moving his hands and fingers in different directions, and with different degrees of velocity, he found that he could produce, at pleasure, a great variety of harmonic sounds, differing in their tone as well as in their intensity, and so loud as that they could be distinctly heard at the distance of forty feet. The Sicilian guide witnessed these phenomena with extreme dismay; and imagining that Mr. Tupper produced the sounds in virtue of some supernatural power, he immediately began to cross himself, and invoked the protection of his saint. His alarm, however, speedily subsided, when, upon being desired to elevate his own arm, he found it as musical as that of Mr. Tupper. Mr. Lanfiar, who was a little behind the rest of the party, now joined them, and found that his fingers possessed a similar property. In the course of five minutes, reckoning, we presume, from the arrival of Mr. Lanfiar, their fingers lost their acoustic property, the cloud having by this time passed to a considerable distance. Mr. Tupper had received an injury in his left shoulder joint by a fall from his horse; but he never experienced any return of the pain after the copious electrization which he received on Mount Ætna.—*Phil. Mag.*

Report of the Hospitals for Small Pox Inoculation and Vaccination, at their annual meeting on the 22d instant, his Royal Highness the Duke of Kent in the chair.

NATURAL SMALL POX.

Patients from the 26th Sept. 1746, to 1st Jan. 1814	22,470	
During the year 1814	79	
		22,549

VARIOLOUS INOCULATION.

Patients from the 26th Sept. 1746, to 5th May, 1808	47,363	
In-patients from 5th May, 1808, to 1st Jan. 1814.	481	
during the year 1814, (3 mothers of infants under 5 years of age, were admitted, on payment for their own board)	27	
		47,871

VACCINATION, begun 21st January, 1799.

From 21st Jan. 1799, to the 1st Jan. 1814.	31,660	
During year 1814, out-patients 1671; in-patients 8	1,679	
		33,339
Total		103,759

Large, however, as the benefits conferred by these hospitals have been from their first foundation, they were far from proving adequate to the wishes of the benevolent supporters. The short seclusion required even for passing through the process of inoculation, was inconvenient to the labouring poor; and children at the breast could only be inoculated as out-patients. The discovery of Vaccination opened a new and infinitely more desirable prospect of superseding

superseding this terrible disease. Nor were the medical officers of the hospital backward in proving, by safe and well-conducted experiment, the real value of a blessing so congenial with the institution. The result of the whole was published as soon as it could be ascertained; and from these reports the new practice met with that early reception which it would otherwise have attained with greater difficulty.

From that time every encouragement has been given to vaccination. But it could not be expected, after the high commendation which, for more than fifty years had been bestowed on inoculation, that the impression in its favour could be immediately effaced, nor was it prudent to form a hasty decision on so important a concern. For a few years, therefore, the practice of inoculation was continued to children, too young to be received into the house, and whose parents could not reconcile their minds to the new practice. But after due experience, the governers thought it right to discontinue the inoculation of small-pox beyond the walls of the hospital, into which grown persons are admitted without expense, and children also, with their mothers, who pay a small compensation for their own board.

The following very interesting occurrences at the above hospital are worthy of being recorded:—Ann Smith, a married woman, aged 22 years, in the eighth month of her pregnancy, was admitted with confluent small-pox on the 5th November, 1814, on the 9th day of the fever, and 6th of the eruption. Notwithstanding the severity of the distemper, and the unfavourable situation of the patient in other respects, she passed through the whole with safety, and even without a premature birth. She continued in the hospital till the 16th of the following month, being about six weeks in all, when she was discharged perfectly recovered.

On the 14th January last, she was admitted into the City of London Lying-in Hospital, and safely delivered of a male child. On the 7th February, she attended at the Small-Pox Hospital, that her child might be vaccinated. The insertion shewing no marks of any effect produced, was repeated two days after; this second insertion appeared red for two days and then disappeared. On the 16th, therefore, 14 days from the first vaccination, the child was inoculated with small-pox matter. This also failed.

Here is an instance of a woman passing through a confluent casual small-pox at a more advanced period of pregnancy than has, we believe, been hitherto recorded without a premature birth, and even without the death of the child either before or a few days after delivery. It may also be fairly presumed, by the subsequent failure of vaccination and inoculation with recent matter, that the child passed through the disease *in utero*; though the mother, for more perfect security, has been advised to bring her child for a fourth insertion in a month or two from the last.

On the day on which the above Ann Smith was discharged, (December 16, 1814), Sarah Clement was admitted from the parish work-house of Christ's Church, Surry. She was a married wo-

man, 22 years of age, and in the seventh month of her pregnancy. Her face was covered with a very bad confluent small-pox. It was the 9th day of the fever, and 7th of the eruption. On the 17th of January last, Mr. Wachsel, resident surgeon and apothecary to the institution, delivered her of a still-born male child with many pustules on the face and body, all in a state of maturity. On account of the thin state of the cuticle, the slough is exposed in each pustule. The subject is preserved in spirits by Mr. Wachsel. On the 11th of February, the mother was discharged perfectly recovered.

This child was born forty-one days after the woman had been seized with the symptoms of small-pox. But it is not easy to say at what period it died. If it really lived till a short time before birth, and there was nothing in its appearance to contradict such an opinion, the mother must have infected it twenty-one days after the commencement of the symptoms on herself, allowing about twenty days for the reception of the contagion by the child, to the period of beginning suppuration in the pustules.

We must not omit the history of two children, one of whom accompanied each of these women into the hospital. Ann Smith brought with her a son about nineteen months old, who had been with his mother during her whole illness. He was vaccinated immediately on his arrival, and passed through the whole process without any variolous symptoms. Sarah Clement brought with her a daughter, about eleven months old, who, two days before, (the 5th of the eruption on her mother) had been inoculated by Mr. Gilham. This child had also been constantly with its mother during her whole illness, and, like the former, went through the process of vaccination without any variolous symptoms.

The above histories contain several valuable facts, and the success of vaccination at so late a period, after constant exposure to small-pox in its worst form, is not the least interesting part.

Dr. SPURZHEIM has examined the skulls at the Museum in St. Bartholomew's Hospital, and also the heads of the boys in Christ's Hospital. At both he shewed sufficient discernment to justify the opinion, that craneology is really a science, and not inconsiderably advanced, considering how recently it has been discovered.

In the press, and shortly will be published, a translation of ORFILA's interesting work on Animal, Vegetable, and Mineral Poisons.

In a few weeks will be published, a translation of Professor LAING's work on Military Surgery.

Mr. ACCUM has in the press, a Treatise on Gas Light, exhibiting a summary description of the apparatus and machinery best calculated for illuminating streets, houses, and public edifices, with carburetted hydrogen or coal gas; together with remarks on the utility, safety, and general nature, of this new branch of civil economy. The treatise will be illustrated with geometrical and perspective

perspective designs, exhibiting the structure of the larger gas light apparatus, now successfully employed for lighting the streets and houses of this metropolis, as well as the smaller apparatus used for lighting manufactories and private establishments.

Mr. T. J. Pettigrew, F.L.S. will commence his Spring Course of Lectures on Anatomy and Physiology on Friday the 10th of March, at half-past eight o'clock in the evening precisely, at his house, No. 3, Bolt-court, Fleet-street.

Dr. Clarke and Mr. Clarke will commence their next Course of Lectures on Midwifery, and the Diseases of Women and Children, on Monday, March 20th. The Lectures are read at Mr. Clarke's house, 21, Saville-row, Burlington Gardens, every day, from a quarter-past ten to a quarter-past eleven, for the convenience of students attending the Hospitals.

Dr. Squire will, on Thursday the 16th of March, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

To the Editor of the Medical and Physical Journal.

SIR,

In your Journal for last month, to my great surprize, I observed an imputation of *misrepresentation* against me from Mr. Woodham.

I have to declare, that I was perfectly uninfluenced by any intention of this kind, in my quotations or remarks respecting Mr. Woodham; and, moreover, upon an attentive review of them, it does not appear to me that any such construction can, with justice, be applied to them.

I have ever considered that candour, in disputed points, demands, that all quotations given for the purpose of remarking on, should be delivered *verbatim, and unmutilated*, the reader then being enabled to judge correctly of the merits on each side.

I have, in this instance, as I ever have done, and ever mean to do, adhered to this rule; Mr. Woodham, however, for what reason is best known to himself, has deviated from this rule, by substituting, in a note of mine, given by him, at page 91, a dash ——— for a portion of a sentence, which I shall take the liberty of supplying: for "———," therefore, read "because it is the most familiar instance of fermentation."

The obvious answer to Mr. Woodham's *tender apprehension* respecting the evil consequences which might ensue in practice, by the adoption of my opinion of a prior existence of *variolous essence* in the human habit, and its expulsion, is the well-known fact, that, however the small-pox, either in the natural way, or by inoculation, is ameliorated or moderated by art, a recurrence of the disease is so exceedingly rare, as never to be expected or apprehended; and, consequently, admitting the truth of my opinion, that, even under these circumstances, this variolous essence itself is, ordinarily,

ordinarily, entirely thrown off, or the habit so entirely purified of it, as to resist any future attacks of the disease.

With respect to the other remarks contained in the same paper, they appear to me totally uninteresting, and answering no useful purpose. I shall, therefore, decline noticing them, and observe, that, on my part, this controversy is finally closed. I am, Sir,

Your obedient humble Servant,

Oxford, Feb. 7, 1815. RICHARD WALKER.*

REPORT OF DISEASES.

PULMONIC disease, always at this season prominent in town practice, is considerably abated. A case of variola in the confluent form, in a coal-heaver, aged thirty, terminated, as in such a subject might certainly be expected, fatally. The peculiarity in the case was, that the man, at different periods of his life, had been exposed to small-pox contagion, and particularly when a boy had been purposely sent amongst children labouring under the disease, without receiving the infection; and now, in mature age, became affected with the complaint, without being able to trace any exposure to the contagion. Three cases of continued fever, with severe pain in the head, but without delirium, occurred. They recovered under the use of purgatives, with saline antimonial medicines. In a case of obstinate pain in the head, in a boy aged eleven years, cupping produced speedy relief, when other remedies had failed.† In this instance, it is probable the passion of fear had some effect, for it operated to such a degree, as evidently to influence the capillary vessels, and impede the abstraction of blood; at least the cupper assigned it as a reason for being able to get only half the quantity directed to be taken away.

The case of chorea mentioned in the last Report is recovering under the tonic treatment. The editor has received a letter on this subject signed H. B. as follows: "Observing, in your Report of Diseases for January, that active purgatives had been tried in a case of chorea for two months without success, I beg leave to mention, that by their means I have succeeded in curing a girl, aged twelve, who had been affected with chorea to a considerable degree for upwards of three months. I observed, that, as the belly became less hard, and the stools less black and offensive, the convulsions diminished; and that when the stools became natural, they ceased altogether." We are obliged to the writer for these remarks, and assure him that our own experience bears ample testimony to the efficacy of the treatment he pursued. But the case reported last month resisted the plan; and chorea, like other diseases, in different subjects, sometimes requires a diversity of treatment.

* We have inserted this letter from a sense of justice to Mr. Walker: as the question at issue, has, we conceive, been amply discussed; we hope that the controversy will not be renewed.—ED.

† He is since completely recovered, and is now a fine healthy boy, although before, he had a sickly look, and was much debilitated.

METEOROLOGICAL

METEOROLOGICAL REGISTER.

From January the 25th, to February the 23d, 1815.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure. Max.	Min.	Mean.	Temperature. Max.	Min.	Mean.	
	26	NE	29·80	29·52	29 73	31	20	24 66	Clear
	27	SW	29·	28 96	28·98	33	21	28	Rain
	28	SW	29·04	29·02	29·033	44	33	37	Rain
	29	SW	29·2	29·2	29·2	40	34	36	Fair
	30	SW	29·34	29·30	29 317	41	35	37	Fair
	31	SW	29·42	29·34	29·386	42	36	37·66	Cloudy. Rain.
◑	1	SW	29·45	29·40	29·42	45	37	39·66	Rain
	2	N	29·60	29·52	29·56	43	35	38·33	Cloudy
	3	S	29·60	29·56	29·586	49	38	42	Rain
	4	S	29·61	29·48	29·532	57	37	42·33	Rain
	5	SW	29·61	29·61	29 61	52	38	43·33	Fair
	6	W	29·63	29·60	29·616	48	36	41·33	Rain
	7	W	29·72	29·59	29·652	50	38	42·33	Rain
	8	W	29·70	29·55	29·612	50	39	43·33	Cloudy
◔	9	SE	29·97	29·66	29·746	45	36	41	Cloudy
	10	E	29·68	29·57	29 602	48	40	43 33	Rain
	11	W	29·50	29·37	29·432	50	38	45·66	Rain
	12	W	29·40	29·40	29·40	50	40	44	Rain
	13	W	29·60	29·50	29 533	50	36	43 66	Fair
	14	W	29·52	29 48	29·49	50	38	43·33	Fair
	15	NW	29·69	29·68	29·685	52	42	46	Fair
	16	W	29·56	29·54	29·545	52	36	46	Rain
◐	17	NW	29 9	29·57	29·757	52	35	44	Fair
	18	SW	30·26	29·68	29·883	50	39	45	Rain Wind
	19	W	29·30	29·30	29·30	51	44	46·33	Cloudy
	20	W	29·78	29·64	29·705	55	43	29·66	Rain
	21	SW	30·04	29·83	29·957	55	47	51·66	Fair
	22	W	30·16	30·16	30·156	55	47	51·66	Cloudy. Fair.

RESULTS.

Mean barometrical pressure of the month 29·5482
Maximum 30·26 wind at SW
Minimum 28·96 —— SW

Mean temperature of the month 41·9887 deg.
Maximum 57, wind at ——
Minimum 20, —— NE

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
1	1	1	1	2	9	11	6

	Mean barometrical pressure.	Mean temperature.
From the full moon on the 25th Jan. to the last quarter on the 1st Feb.	29·274	33·386
—— last quarter on the 1st, to the new moon on the 9th	29·573	41·46
—— new moon on the 9th, to the first quarter on the 17th	29·554	45·273
—— first quarter on the 17th, to the full moon on the 23d	29·793	41·577

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

OBSERVATIONS on the Symptoms and Treatment of the Diseased Spine, more particularly relating to the incipient Stages; with some Remarks on the consequent Palsy. By Thomas Copeland, Esq. Fellow of the Royal College of Surgeons, and Assistant-Surgeon to the Westminster General Dispensary. 8vo. —Callow.

The Medical Friend to the Asthmatic Patient, shewing him the particular Species of his Disorder, and also what to pursue, and what to avoid, in regard to Medicine, Diet, Situation, and other circumstances connected with his Complaint. By W. Nisbet, M.D. 12mo.—Callow.

Observations on a Case of Strabismus Divergens, or Squinting. By M. Roux. 12mo.—Cox.

Engravings of the Thoracic and Abdominal Viscera, and the Canals connected with them; representing the Natural Appearance of those important Parts immediately after Death, and without being affected by previous Disease. By Alexander Monro, jun. 4to.—Longman and Co.

A. Corn. Celsus of Medicine in Eight Books, translated, with Notes, critical and explanatory. By James Greive, M.D. A new edition. 12mo.—Anderson.

An Attempt to establish a pure Scientific System of Mineralogy. By J. J. Berzelius, M.D. Translated from the Swedish, by John Black. 8vo.—Baldwin and Co.

Want of room obliges us to defer the MONTHLY PRICES OF DRUGS; but, by reference to those given in our January Number, and by the aid of the following subsequent variations, our readers will ascertain their correct value, as at Messrs. SELWAY and HENLEY'S Chemical and Pharmaceutical Laboratory, 55, Upper Mary-le-bone Street, Portland Place.

Æruginis	lb.	7	0	Lichen Islandicus	P. lb.	1	6
Argenti Nitras		6	9	Manna optima		7	0
Assafœtida Gummi-resina		5	6	Moschus pod. 24s. in gr.	unc.	42	0
Balsamum Peruvianum		28	0	Opium (Turkey)		29	0
——— Tolutanum		18	0	——— (East India)	lb.	36	0
Coccinella		52	0	Potassa Subcarbon		1	8
Colocynthidis		7	3	Rosæ Folia		7	6
Cocci stigmata		62	0	Rhei Radix (East India)		16	0
Galbani Gummi-resinæ		8	0	Sarsaparilla Radix Inc.		5	6
Hydrargyrus purificatus		5	10	Spiritus Vini rectificatus		25	0
Liquor Ammoniæ	P.L.	3	0	Sulphur		0	8
——— Vol. Corn. Cerv.		1	2	Tinctura Cast.		8	6

TO CORRESPONDENTS.

We have received a Communication from our former correspondent Dr. Walker of Huddersfield; but, as the superscription is different from the place where it was received, we wait to know whether there is an error, that we may either insert, or forward it to another publication.

Communications from Drs. Kinglake and Robertson; Messrs. F. E. Franklyn, Wilson, C. W. Smerdon, J. Lignum, &c. &c. have also come to hand.

THE

Medical and Physical Journal.

4 OF VOL. XXXIII.] APRIL, 1815. [NO. 194.

"For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable series."—RUSH.

For the Medical and Physical Journal.

On Vaccine and Variolous Inoculation; by Dr. KINGLAKE.

I LATELY submitted to the public, through the medium of your Journal, some observations on the apparently prevailing failures of cow-pox as a preventive of small-pox. Since then, increasing rumours and apprehensions on the subject in this neighbourhood have rendered a further consideration of its merits of the utmost importance to domestic tranquillity. When the parents of vaccinated children are alarmed for their doubtful safety against the ravages of small-pox, and when medical practitioners rather join in the consternation by instantly resorting to variolous inoculation for the desired assurance, it is time to examine how the question fairly stands between vaccine security and variolous danger. The vaccine disease has, with some exceptions, very reputably maintained its ground as an effectual preventive of small-pox until very lately. The accidental instances of failure that have occurred, may be referred to either a deteriorated state of the vaccine fluid, owing to its protracted diffusion through the human subject by means of inoculation, by its being taken at a period of the disease when the specific and anti-variolous property of the matter did not exist, or under circumstances of idiosyncratic or accidental conditions of insusceptibility for the disease that rendered its efficacy unavailing for the intended security. Either one or more of those causes may effectually impede the vaccine fluid from exerting its wonted preventive influence. That such cases might present cannot be denied, and that they actually do also occur in variolous inoculation all those who have been most conversant with that practice can readily attest. Why then should casualties be admitted as an insuperable objection to the general course of the disease? to allow of such latitude of objection, would be to argue from an exception rather than from the general rule,

a mode of reasoning too illogical to be at all conclusive. A due attention to the causes of the occasional failures will suggest the most probable remedy against them. An uniform reference to the cow for the morbid fluid, generated by the vital actions of its own peculiar animal economy, appears to me, as formerly observed, to be meeting the difficulty *in limine*, and to afford the best chance of completely overcoming it. Neither the preservative efficacy arising from the specifically active powers of the vaccine fluid, nor that of idiosyncratic insusceptibility to its influence, can sufficiently assure the anxious solicitude that ever must exist on the subject.

It is not my desire to assume any thing to the disadvantage of vaccine inoculation, nothing short of unquestionable facts would I admit into the discussion of its merits. The reputed failures are numerous; the real ones, it is my firm persuasion, are but very few; indeed, not more perhaps than may be justly regarded as exceptions to general influence, and to which all powers and properties are more or less liable. The real facts by which the question should be tried would seem to be those which instances of natural, not inoculated, small-pox after vaccination would furnish. But two cases are, at present, distinctly in my recollection of such occurrences, one of which appeared to be decisive of vaccine inefficacy as a preventive, the other was too doubtful to be adduced as an authority, it, therefore, fell short of the character which real facts ought to possess on the occasion. I have, indeed, heard of many others, but no opportunity has been afforded me for verifying them.

The natural small-pox is too vague a phrase to decide on the reality of that affection. This disease may occur under different circumstances, having an apparent sameness of character, but radically dissimilar with respect to the constitutional and local nature of the disease. The distinction arises from the previous as well as concomitant symptoms. When shivering, sickness, head-ach, and prostration of strength, succeeded by febrile reaction terminating in eruptions on the cutaneous surface, and running the usual course of small-pox, there can be no question of the real nature of the disease; but, when similar eruptions on the skin shew themselves unpreceded and unattended with the febrile character of constitutional small-pox, it is by no means conclusive that such a disease is any thing more than a local affection of the skin, such as may happen again and again in any person who may have previously undergone either the natural or inoculated small-pox. That such instances of merely cutaneous small-pox may occur after vaccination, is no more than what equally happens after the small-pox itself,

and

and cannot be admitted as justly impugning the anti-variolous power of vaccine disease.

The instances with which the medical world begins to abound of small-pox being imparted to persons who had previously been subjected to vaccination merit, I am firmly of opinion, to be for the most part considered as sheerly cutaneous affections, and do not warrant any thing like a conclusion against the protecting efficacy of vaccine inoculation. Where is the skin that will not be more or less irritated by inserting under it variolous matter? and, if it be inevitably irritated in a degree, what is to hinder an extension of that effect to the length of inducing eruptions over the whole surface. At the place of inoculation, a variolous action is excited, which may either exhaust itself on the part, or become diffused over the whole skin, according to circumstances of contiguous and remote sympathy, and to the greater or less irritability of the skin. It will not, then, be just to denominate an inflamed arm from variolous inoculation, whether attended or not with eruptions, a case of real small-pox, provided it be unaccompanied with the usual symptoms of variolous disease. It is not enough even that nausea, head-ach, and an increased action of the heart and arteries, should follow the local stimulus occasioned by inoculated small-pox, when it quickly ensues its insertion; it is then no more than simple excitement, if the system at large should become insusceptible of variolous contagion from either having before undergone the disease or rendered inaccessible to it by vaccination. A striking instance of this kind has just occurred in my own family: A son of mine, aged about seven years, was lately the subject of singular irritation from the insertion of variolous matter. Within twenty-four hours, the inoculated part of the arm became violently inflamed and swollen, with a suppurated point of the size of a large small-pox eruption; this high excitement induced nausea, vomiting, head-ach, sore throat, extreme rapidity of pulse, coated tongue, and a general efflorescence over the skin. The arm remained equally inflamed until the second day, and until then the suppurative process continued; at about that time, the local irritation diminished, and, with that abatement, the symptoms of general disease also subsided. The local inflammation then rapidly declined, leaving, on the eighth day, an incrusted cicatrix considerably elevated above the level of the surrounding skin, similar to the protuberant eschar usually remaining after a successful inoculation for the small-pox. An areola was also apparent around the inflamed part until that time; an eruption, likewise,

near the inoculated sore appeared on the fifth day, which also began to retreat on the eighth day.

The inordinate course assumed by this experimental inoculation induced a momentary anxiety in my mind, that parents only can appreciate, and which no suggestion of medical philosophy could wholly repress. The event, however, (as might have been justly anticipated) proves it to have been a case of local irritation, going the length of involving the system by the strong sympathetic influence it excited. The progress and termination of the symptoms clear the case of all suspicion of its being variolous, and prove that the system has been, as was confidently expected, effectually guarded by the vaccination to which it had been five years before subjected.

The recording of this case may serve the practical good of furnishing a caution not unnecessarily to expose children to the possible effects of variolous inoculation, for who can with certainty say, that, however the variolous infection may be rebutted by the system generally, that it may not induce very serious, nay, mortal mischief on the part where the morbid poison may be inserted. That this may be the case, I suspect is all but fatally proved in the instance under consideration. If the inflammatory action had spread erysipelatously over the skin, instead of sinking into the muscular structure in a phlegmonous manner, it is conceivable, and to my feelings, circumstanced as I was, it is horrible to reflect on it, that, instead of ending in suppuration, it would have terminated the life of the dear little sufferer by gangrene. Since the fifth day of the disease, the time when the above remarks were written, the little patient remained apparently free from all complaint until the morning of the ninth day, when sickness, vomiting, and head-ach, attended with quickened pulse, heated skin, coated tongue, and great thirst, again occurred. Repeated and copious vomiting relieved the pressure of disease at the time, but the symptoms recurred on the following morning, the 11th of the disease, with increased violence, and again were removed by plentiful vomiting. On the 12th day of the disease, slight head-ach existed, with a tendency to nausea. The diet was confined to a small quantity of vegetable substances, and no fermented liquor was allowed, the bowels were sufficiently open, and in two or three instances freely moved by medicine. The state of the child at that time was as might be expected in the ordinary course of infection from variolous inoculation, yet not the slightest variolous action appeared to be going on at the inoculated part, nor was there a small-

pox

pox eruption on any part of the surface. May not the vaccine influence, where it does not altogether resist the action of small-pox, so modify its character as to induce the inordinate appearances that have been exhibited in this case, and instead a perilous adventure to bring into collision the irregular actions of two different diseases? Is it not imposing on the healthy energies of life, a conflict of doubtful and dangerous issue?—These questions are intended, as seasonable checks at this period of ungrounded alarm against the prevailing disposition to fly to the insertion of variolous matter, as the only safeguard against the uncertainty of vaccine efficacy. It cannot reasonably be supposed,—all analogy indeed is against the supposition,—that a morbific fluid, so virulent as that of small-pox, can have ingress to the system with impunity. It may prove innocuous, but the chances of mischief would seem to have a fearful odds against its being altogether inoffensive.

I am strongly of opinion, that were persons, who have undergone either the natural or inoculated small-pox, to be subjected to the action of variolous matter, as it is commonly inserted in those who have been vaccinated with a view to be decidedly secure from small-pox, that in most instances effects would be produced similar to those that arise after vaccination; that is to say, that the inoculated part would irregularly inflame, and that, on some occasions, eruptions on the skin might appear, and that symptoms of fever might occur, according to the state of irritability in which the trial may find the skin and the system at large. It is time that the perplexities in the public mind on this subject should be explained and removed, and that the point in question should be investigated by a patience of research and a clearness of enquiry far exceeding any thing that has been hitherto shewn on the occasion; then, and not till then, will information be afforded that may serve as a steady and an infallible guide amidst the various and contradictory notions of an undiscriminating public, and the pusillanimous and vacillating demeanour of some of the medical faculty.

Taunton, ROBERT KINGLAKE.

Jan. 26, 1815.

For the Medical and Physical Journal.

On the Case of W. O. with Remarks on the secondary Symptoms of Syphilis, by John Wilson, Esq.

HAVING carefully read over the article in your Number for December last, signed W. O., I am induced to offer some observations, which, I trust, if not useful in the particular

ration of all the symptoms; and I have also seen cases of the same description, where the exhibition of mercury alone has been attended with great inconvenience and hazard. In these cases, I have found the above combination of mercury with opium to be eminently useful. In many it has operated in the speediest as well as most beneficial manner, giving the patient, according to his own account, more rest and freedom from pain, on the first night of taking, than had been obtained for weeks. I have afterwards been able to increase the dose of corrosive sublimate to two or even three grains, without the necessity of increasing the quantity of opium, and also, which is of very great consequence, without disturbing the ordinary functions of the system.

The cases to which I now allude were not only ultimately cured, but several years have elapsed since some of them occurred to me, and I have the pleasure of knowing that they continue well. It is not for me to say that the same plan would inevitably cure the unfortunate writer of the article in question; but I would, with great deference, submit to him, or to his medical attendant, a trial of the above remedy.

Devonshire-square; JOHN WILSON.
Feb. 22, 1815.

For the Medical and Physical Journal.

On the Effects of Tincture of Colchicum in Gout; by by Mr. J. LIGNUM, Jun.

IN your valuable Journal, No. 187, I observe a difference of opinion between Dr. Sutton and Mr. Want on the *modus operandi* of the Tinctura Colchici for the cure of gout. The following case strengthens Mr. Want's argument on the effects of that medicine in gout, and evidently proves it was not from the violent purgative qualities of the Tinct. Colchici that the cure was effected.

On the 14th of December last, I was requested to visit a lady 53 years of age. I found her attacked with the gout in the right foot; the ancle much swelled and inflamed, attended with considerable pain. She informed me it was the fifth attack. The paroxysms generally last from three to four weeks. I ordered her

℞. Hyd. Subm. gr. viij.
Pulv. Jalapii, gr. x.
Pulv. Scammon. gr. iv. s. q.
M. ft. Pilulæ No. iij. stat. sum.

Dec.

Dec. 15th.—9 A. M. Has had several very copious offensive stools; in other respects no alteration.

℞. Magnesiæ Vitriolat. ℥j.
Antim. Tart. gr. ¼.
Infus. Sennæ, ℥ij. M. ft. haust. stat. sum.

6 P. M. Has had several copious stools, still offensive; pain not abated.

℞. Hyd. Subm. gr. vj.
Aloes, gr. vj. M. ft. Bolus stat. sumend.

16th. Bowels well opened; stools of a more natural appearance; pain unabated.

℞. Haust. Cathartic ut antea.

17th.—Stools quite natural; pain not diminished. This day I determined to try the Tinctura Colchici. I sent her three draughts, each containing two drachms of the tincture, and desired one to be taken every six hours.

18th.—I was astonished to find my patient down stairs: she has had no stool since taking the draughts; is nearly free from pain. Rep. Haust. ut antea.

19th.—Quite free from pain; no alvine evacuation. Rep. Haustus.

20th.—Still free from pain; has had two watery stools, which she compares to coffee grounds.

21st.—Bowels regular. From this time I have given her no medicine, and she is now quite well. I attribute the cure to the colchicum, not for its purgative qualities. I shall still be an advocate for clearing the primæ viæ prior to using the colchicum, since I have read and seen its effects. I shall not implicitly trust to Epsom salts, aloetic purgatives, calomel, jalap, or gamboge; but look upon them as auxiliaries only to the grand specific. JOHN LIGNUM, Jun.

Member of the Royal College of Surgeons in London.

Manchester; Feb. 16, 1815.

For the Medical and Physical Journal.

Case and Dissection of Aneurism of the Aorta, in which there had been very slight Irregularity of the Pulse, with many other remarkable Appearances, not suspected during Life; by JOHN HAXBY, of Pontefract, M.D.: *containing also Observations,* by Dr. BAILLIE, of London.

LIEUT.-COL. T., æt. 59, endowed with an excellent constitution, entered into the army at the age of 16, and indulged in all the convivialities of the table without restraint. While in the West Indies, he suffered from the fever of the climate, and had the jaundice severely. In a short time he regained his health, and continued free from

indisposition till within a year and a half, or two years, of his decease; at which period he became subject to dyspeptic complaints, gradually lost his natural vivacity and equanimity; the complexional bloom of health, and plumpness of habit, being exchanged for sallowness and emaciation. The faculty, whom he at the time consulted, treated the complaint as a diseased liver, and administered mercurial medicines freely, with apparent advantage to his general health.

The Col. first consulted me in the month of April last, complaining that his sleep was much disturbed, that his appetite failed him, and that he had frequent palpitations at his heart on any increased exertion. His complexion and habit were as above described; his pulse somewhat quicker and more dilated than natural, with occasional intermissions at long intervals. I was not without my suspicion that there was a tendency to aneurism of the heart or its larger vessels, which, if it did not terminate fatally by rupture, might end in hydrothorax. I prescribed a slight tonic, combined with diuretics, and recommended a continuation of the pilula hydrargyri, which he had been in the habit of taking for the supposed affection of the liver. I was agreeably surprised with the result of this treatment, which very materially relieved all the symptoms, and gave encouragement to hope that he might progressively regain his former vigour of health. Unfortunately, however, about this period, he took cold, from incautious exposure to the easterly winds, then very prevalent. The family apothecary had the exclusive management of him for three weeks, when I was desired to visit him at his own house, a distance of three miles from home, which hitherto he had preferred riding, from a persuasion that the exercise was conducive to his recovery.

I found him labouring under all the symptoms of atonic croup. The fauces internæ were exceedingly relaxed and pallid; the voice was gone, and inspiration was performed in a slow protracted manner, as if the air had to be drawn through a tube of contracted diameter. Every attempt to cough was followed by great anxiety and exhaustion, without any expectoration, except of viscid saliva. The pulse was small, obstructed, and slow; not exceeding 60, and sometimes not attaining even to 50 beats in a minute. As there was no thirst or any other symptom of fever, I considered the affection to be a species of chronic croup, and recommended astringent gargles, a blister to the throat, and expectorating medicines of ammoniacum and squill; particularly enjoining stillness, and an uniformly warm temperature. No amendment ensued from this plan, which was persisted in for some days, with occasional slight variation in

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the expectorants. I then ordered the vapour of hot water medicated with vinegar, æther, &c. to be inhaled as often and as long at a time as was found convenient or beneficial; and the throat to be rubbed with mercurial ointment. All proved unavailing. The sleep of my patient now became disturbed, and the recumbent posture, which before had been most favourable to his tranquillity, proved a source of uneasiness. He found great difficulty in undressing himself, in consequence of increased dyspnœa, especially when his arms were extended, and his body inclined forwards. He was obliged to use the greatest deliberation in walking up stairs, and the anxiety he felt during a paroxysm of coughing was excessive. No expectoration followed, though, from the peculiar sound at the time of coughing, there was reason to apprehend that some viscid lymph was extended across the trachea, which, from the violent expulsory effort, must every moment be detached and discharged.

An eminent and experienced physician, Dr. Walker of Leeds, was called in consultation. He coincided with me in the propriety of continuing the local treatment of blistering the fauces, inhaling medicated vapour, and gargling with astringent and stimulating gargles. He advised also an emetic, which, from a fear of suffocation, I had hitherto forborne to recommend. Purgatives too formed part of the plan of treatment, from a belief that the liver, which gave pain on pressure, was a principal seat of disease; though I never heard my patient make any complaint of this organ previously to the examination by Dr. W. The compound liniment of quicksilver was rubbed in on the right side, and the pilula hydrargyri exchanged for the submuriate of mercury. He bore the operation of the emetic very well, and thought himself rather relieved by it. In consequence of the bowels being too much affected by the submuriate of mercury, the original pill was resumed, and, together with the liniment, was persisted in for a great length of time, without any ptyalism or unpleasant consequence supervening. The season being now agreeably warm, our patient was frequently indulged with an airing. No material advantage resulted from our combined efforts, except that the voice became gradually more audible. The emetic was repeated, but occasioned disappointment, requiring an increase of the dose, which frequently produced only one feeble effort of vomiting, while the bowels were much harassed with its secondary operation. The pulse now became unequal in its rate, beating sometimes 60, at other times 80 or 90, strokes in a minute, but always being slowest when the respiration was most difficult, and especially during the paroxysm of coughing.

I described the case to Dr. Baillie of London, who gave no encouragement to our hopes, considering the symptoms as indicative of some disease in the inner surface of the windpipe, with, probably, a disease of the liver, and a tendency to hydrothorax. He ordered four or five leeches to be applied twice a-week to the upper part of the sternum, if his strength would bear the application so often; a combination of the pilula hydrarg. with digitalis and squill, night and morning; and a slight expectorant of gum ammoniac dissolved in camphorated mixture, with the addition of a little spirit of æther, twice during the day.

The air of Thorp-Arch being esteemed remarkably fine, Col. T. took up his abode there for a fortnight; at the expiration of which period he returned home disappointed and dejected, more pallid and emaciated. He had, of late, experienced more pain and discharge than usual from the hæmorrhoids, to which he had been subject for some years, and could not, in addition, bear the small evacuation caused by the leeches.

A medical friend of the patient's encouraged him with the relation of a case, apparently similar to his own, which, after six weeks successive blistering of the throat, was completely cured by the expulsion of a viscid membranous lining of the trachea. I had no expectation of a result so favourable, being convinced, from the tone of my patient's voice, which, when exerted, was perfectly natural, that no such morbid lining existed; yet I acceded to the proposal of a succession of blisters. I should, however, have preferred a seton passed on each side of the trachea. The event justified my apprehension, and dispirited the patient.

The officers of his regiment having assembled at York, the Col. thought it necessary to give them the meeting. He was so exhausted by the exertion of talking to them, that he was obliged to have recourse to Dr. Best for assistance in the night, being threatened with suffocation. He was relieved from this alarming state by an emetic; and was, by experience, convinced that the original plan of mild expectorants combined with the digitalis and the pilula hydrargyri was ultimately most to be depended on. Still, however, no progress was made towards recovery, and the Col.'s patience, as well as that of his friends, began to be exhausted. Dr. Crowther, of Wakefield, was called in. He agreed with me as to the probable nature of the complaint being a thickened state of the internal membrane of the trachea, and advised repeated vesication of the part, with the subsequent application of the ceratum sabinæ to promote the discharge. He also proposed a solution of assafœtida. This, not proving

efficacious, was soon discontinued. The blistering process, having been so long ineffectually submitted to, was now objected to by the Col. who consented to have a seton inserted, as I had before proposed; this, however, from his becoming worse about this period, was deferred, and never afterwards put in practice.

He found great difficulty, about this time, in lying on the right side, from a sense of suffocation. On examining the chest in this posture of the body, I found that the heart did not beat in its usual place, being protruded more towards the centre of the sternum; nor did its pulsations quite correspond with those of the radial artery; the aorta descendens, as well as ascendens, with its immediate branches, beating more strongly than might be expected from the generally debilitated state of the patient, and the slenderness of the pulse at the wrist, especially in the left arm. In making this examination, I was, for the first time, struck with a peculiarity in the breathing, which I heard distinctly on applying my ear to the thorax, and even at a greater distance, and which the patient had himself before remarked. After the air had been drawn in by a protracted and laborious inspiration, and was about to be returned, a peculiar sound was heard, as if the air had regurgitated, and passed rumbling along into a large and deep cavern.

Having had an interview with Dr. Storer of Nottingham, I communicated the particulars of the case to him. He advised dry cupping of the part, electricity, and the nitras argenti in large doses. Electricity had been before suggested by a medical friend of the patient, and had been tried, without advantage. The nitras argenti did not agree, and was soon abandoned. There now came on a degree of fever, the pulse being accelerated to 100 and upwards, and soon amounting to 120. A purulent expectoration also supervened, which was discharged by a cough, very different from the original croupy cough; the respiration also being more free, as if the stricture had been partially removed.

A very respectable surgeon, Mr. Bramton of Doncaster, was sent by some friends of the patient to assist in consultation. He apprehended the case immediately by my description, before he saw the Col., and differed only in his opinion that the seat of the complaint was in the glottis. He conceived (to use his own expression) that nature had taken the alarm, and that the effort now making would be critical, but, probably, from the increasing debility, fatally so. Indeed, the day after this interview, the symptoms became so much aggravated, that I despaired of my patient surviving the day, the respiration having become so quick and laborious, the pulse

pulse beating from 120 to 130, weak, and fluttering, with frequent intermissions, and the expectoration being suspended. He not only, however, survived the night, but was much better the day following; expectoration was restored, and the pulse became slower, more regular, and free. The day after he relapsed, and again was despaired of. He again rallied, and felt equal to washing himself, and changing his linen; but the exertion was carried too far; he became gradually weaker, and, though he survived four or five days, was evidently sinking. He had not lain in bed for nearly a fortnight, as he found himself easier on a sofa, being well supported with pillows. In addition to his general sufferings, he experienced much pain about this period from the hæmorrhoids, and had almost expired in consequence of changing his position to the right side, to have some suitable application put to them. Dr. Walker saw him again in this state, and recommended wine and nutritious diet, giving it as his opinion that he might continue a week or two, but would probable die suddenly. The day after, the latter part of the prediction was verified. He felt two or three convulsive arrests of breathing, and suddenly expired.

Fifteen hours after death, the body was inspected. The liver was first examined, and, to our surprise, was found, in all respects, perfectly natural. The spleen was somewhat enlarged, and almost putrid, being of a bluish white colour. The lungs were ash-coloured; livid in patches; adherent, on the left side, to the pleura costalis, in which cavity there were found about five or six ounces of a serous fluid tinged with blood. A somewhat greater quantity of a similar fluid appeared in the right cavity, but without adhesion of the lungs. The internal substance of these organs was infarcted with an effusion of bloody serum, mixed with aerated pus. The air-cells appeared, in many places, to have been ruptured, forming large projecting vesicles upon the surface of the lungs, and particularly at their edges. The pericardium contained about two ounces of colourless serum. The heart appeared rather flaccid, less florid than natural, and had, in each ventricle, a little black coagulated blood. The aorta, immediately after having emerged from the left ventricle, was dilated into a large unequal cylindrical tube, the dilatation being continued to the commencement of the arch, at which place, just before the arteria inominata is given off, an aneurismal sac, about the size of a pullet's egg, was discovered, replete with laminated coagulum of blood, and resting on the dextro-posterior part of the trachea; in the side of which, a hole about the size of a sixpence was formed, by the continued pressure of the sac.

The

The membranous covering of the sac, where it rested on the trachea, was so thin as to make it doubtful if it also were not corroded, the mass of coagulum serving as a plug both to the artery and the trachea. The dilated aorta was choked up with polypi of coagulated blood. The larynx and trachea, except where the ulceration was, were internally sound and healthy.

One of the most peculiar circumstances of this case is, the little derangement of the pulse; though, from the existence of aneurism, and the diseased state of the aorta ascendens, one might be prepared to expect great irregularity in the circulating system. Dr. Baillie has favoured me with the remark, that "it is not uncommon for the pulse, in aneurism of the arch of the aorta, not to intermit, but even to be tolerably regular." Another remarkable occurrence is the ulceration of the trachea, without the transmission of air into the aorta, or inundation of blood into the trachea. We were particular in ascertaining whether there was any emphysema, from the escape of air into the cellular membrane, but found no vestige of such communication, nor can it be supposed that the peculiar noise I before mentioned, as occurring in laborious respiration, depended on any deviation of the current of air from its natural channel. It arose, more probably, from a rupture of the air-cells on the margin of the lungs. There were, indeed, occasionally, streaks of blood in the expectorated mucus, after severe paroxysms of coughing; but they were merely the consequence of the violent exertion lacerating a few superficial vessels. From the fine and almost membranous state of the stratified coagulum of blood in the aneurismal sac, it might be concluded, that the aneurism must have been of long standing; but the inference is invalidated when we consider, that the tumour did not, at his death, which happened on the 30th of October, exceed one inch and a quarter in diameter, and that it had not attained any considerable magnitude till the beginning of the month of May, when, from the sudden loss of voice, and great dyspnœa, which were, at the time, but probably erroneously, ascribed to the effects of cold, it may be supposed it had acquired a rapid augmentation of bulk, as, till then, there had been no particular impediment to the functions of respiration. Whether the solidity of its contents is to be referred to the increased force of compression from its proximity to the heart, or to any coagulating power from the influence of the air acting upon the confined blood, through the attenuated parietes of the sac and membranous part of the trachea, I leave to more able theorists to determine. Rupture of the air-cells of the lungs is, I apprehend, a circumstance

cumstance not frequently observed; but, in this case, it may reasonably be attributed to the violence of the expiratory effort, during the paroxysm of coughing; the air reacting upon the cells of the lungs, in consequence of the resistance to its exit through the contracted tube. The appearance of purulent matter, and the partial gangrene of the substance of the lungs, confirmed by the accelerated state of the pulse, and the effusion of bloody serum into the cavities of the pleurae, denote previous inflammation of these organs, which supervened about a fortnight before the death of the patient, and may be accounted for on the supposition of the stimulus of pain, from over-distension of the air cells, acting on the vascular system, previously debilitated from imperfect oxygenation of the blood. "A really putrid state of the spleen," Dr. Baillie informs me, "is very rare; but an extremely soft state of it, without putridity, is not uncommon." In this case it had more the appearance of a mass of grumous blood, scarcely confined by its very tender covering, and was not of sufficient tenacity to bear displacing by the hand, without the fingers passing through its substance. It is very singular that there was no suspicion of its being at all diseased; and it is equally so that the liver should present itself in a healthy state, having been so generally suspected of derangement of structure.

Pontefract; JOHN HAXBY, M.D.
Feb. 24, 1815.

Remarks of an Editor.—The above case is in all respects so valuable, and related with so much perspicuity and candour, that we cannot refrain from expressing thanks for our readers as well as ourselves. We trust to Dr. Haxby's candour that he will not be displeased with a few inquiries. First, might not the cause of the dyspnœa be the occasional pressure of the tumour on the upper part of the œsophagus? Secondly, was any attempt made to press the air from the larger vesicles into the cells of the lungs? Such vesicles seem to owe their origin to the rupture of a number of cells by some such violence as Dr. Haxby relates. We are informed by a learned veterinary surgeon, that they are the usual cause of the broken-wind in horses. From the violence which occasions the rupture, probably inflammation follows, by which adhesions take place, thus effectually separating the ruptured from the sound air-cells. If such was not the case in the present instance, it renders the appearance still more interesting, from its rarity, and the effect produced during life. Lastly, might not the appearances in the spleen, and of gangrene in the lungs, be the effect of unoxygenated blood loosely coagulated, as it was found in the heart?

For

For the Medical and Physical Journal.

On the Internal Use of Nitras Argenti, combined with the Shower Bath, in Chorea Sancti-Viti; by Mr. F. E. FRANKLYN.

THE daughter of Mrs. Atkinson, of this city, aged thirteen years, applied to me for relief in a case of Chorea; and, having been previously discharged from the Infirmary as an incurable patient, I felt not a little interest in minutely examining the progress of the disease. On the 1st of September 1813, I was sent for, at a time when I found her affected with involuntary motions of the muscles of the face, producing great alteration in the features; a constant playing with her fingers, turning them in various forms, so that at times she was totally incapable of feeding herself; with great imbecility of the mental powers; and frequent fits of laughing and crying, without any evident cause. The complaint had been attended by a physician of this place for some time without any marked alterations; and, finding that she was prevented from making herself useful, she felt anxious to try still further. On inquiry, I found no natural evacuation had been procured for three days. I immediately prescribed

℞. Hydr. Submuriat. gr. iv.
Pulv. Jalapæ Com. gr. xij.

and, on the following morning, I had the satisfaction to find the bowels were fully emptied of their contents. The fæces, on examination, were found to be unnatural in colour, consistence, and smell, as they are often met with after a long remora,—the consequence of obstinate and protracted costiveness. Her strength was much impaired, but, her appetite continuing good, I now thought I might with some care venture on trying the internal use of Nitras Argenti, having heard of its success before. I prescribed as follows:

℞. Argenti Nitratis, ℈j.
Supon. Alicant, ʒj.
Mucil. q. s. ut fiat massa divid. in Pilul. xl.
capiat ij. ter in die;

and by these means my patient continued to take three grains daily for a fortnight, without any unpleasant effects, which might have been expected from so deleterious an article. This powerful agent speedily excited an increased stimulus on the nervous system, so as to cut short the paroxysm of convulsions; and, in order to promote a still stronger impression, I desired my patient to have a bucket of water poured on her head every morning for a week, which had the decided effect of restoring her emaciation; yet, though I found cold affusion of benefit in this case,

I cannot be supposed to say that it will always answer. Dr. Currie, in his very valuable Reports, speaks of cold water as of inferior efficacy in this disorder, he having frequently tried it, but never found it of any service. The stimulating action of cold, though short in duration, is powerful in degree. In the torpor of convulsion, when weaker stimuli are unperceived, the affusion of cold water on the naked body will often excite the dormant sensibility, and introduce a new action throughout the nervous system.

FRANCIS EDMUND FRANKLYN.

Lincoln; Feb. 9, 1815.

For the Medical and Physical Journal.

Case of supposed Confluent Varicella; by Mr. Rowe.

FROM the difference of opinion existing with medical men respecting vaccination being a preventative of variolous contagion, I am strongly induced to publish this case, so much resembling both varicella and small-pox.

On the 17th of February last, I was sent for to see a lad, a pupil of Mr. Firminger's, Camden-street, Camden-town; I found him labouring under a great deal of fever; pulse quick; tongue dry, and of a dark colour; skin very hot, and the face much flushed; a rash could easily be felt under the skin, which was not at all elevated; the eyes were a good deal inflamed, and the throat sore. From these symptoms, I was induced to believe it was either measles or scarlatina. I ordered him an aperient at bed-time, composed of calomel and rhubarb, which operated freely towards morning, when I found him much better; the fever abated, and the face very full of small pustules, a numerous quantity of which were scattered all over the body, the arms in particular; but these were not so much elevated as those on the face.

The whole bore a very strong resemblance to small-pox, but upon enquiry it was ascertained, that he had been vaccinated three or four years before, and that the disease had gone through its regular form. The following circumstance also tended very strongly to heighten my doubts as to the nature of the disease: six or seven boys of the school were then affected by varicella in its usual mild form; his brother, one of the number, with whom he slept, and who had also been vaccinated. On visiting him in the evening, I found no alteration in the symptoms.

19th. The pustules were more diffused and elevated; the eyes a little swollen; fever high, and pulse quick; but no dangerous symptoms present. Much the same in the evening.

20th.

20th. Still little variation of symptoms; the pustules larger, and filled with a lymph of a bright colour.

21st. I found the fever much abated, and my patient in every respect going on well. The treatment pursued throughout, had been simply that employed in all similar diseases—the bowels kept open with small doses of calomel and antimony, the former of which acted slightly on the salivary glands.

22d. The pustules had changed in appearance, and contained a straw-coloured lymph; and, on the 23d, three or four of those on the face were on the decline; others filled with *pus.*

24th. The eruption was still more declining on the face; but the pustules on the extremities continued full and large, and remarkably firm to the touch, feeling under the hand like pease.

25th. They were all very much changed in appearance, and the boy quite well.

I continued to see him daily till the 2d of March, when I found the pustules had not left a depression, as is usual in small-pox, but that the skin was universally elevated; this symptom induced me more strongly to believe in its being varicella.

In a case of so much interest, at the same time affording such ample room for variety of conjecture and difference of opinion, I felt unwilling to rely upon my own judgment alone, and therefore solicited the attention of several of my medical friends, some of whom saw my patient daily, and thus had an opportunity of observing the disorder in all its progressive and receding stages. Among them, he was visited by a physician, to whom the medical world is indebted for a most useful and interesting work on Cutaneous Diseases; his opinion was equally fluctuating and undecided, from the disorder bearing so strong a similarity to small-pox, while at the same time so many circumstances corroborated the supposition of its being varicella.

Some pus was taken for the purpose of inoculation, and I hope by the next month to have it in my power to give this demonstrative and decisive proof. I feel most anxious, that on this subject conjecture should be satisfied; for I have no doubt that many cases of the kind have occurred in families, where the medical attendant has never thought of varicella; thereby tending to prejudice him against, and depreciate the value of, that inestimable discovery (vaccination), to which we are indebted for the preservation of the lives of thousands.

1, *Clarendon-square, Somers'-town;* MATTH. ROWE.
March 3, 1815. *Member of the Roy. Coll. of Surg.*

For the Medical and Physical Journal.

Essay on the Functions of the Nervous System; by Mr. C. W. SMERDON.

(Continued from p. 88.)

TO the eye of an uninformed observer, the blood, as it circulates in the vessels, would appear perfectly homogeneous; nor would any argument convince him, that so many different compound fluids as we find in the animal structure, are formed out of this one and apparently simple substance.

Out of the body, the blood is seen in three different states: fluid, as it flows from the vessels; solid, after standing a few minutes; and lastly, fluid and solid, when the crassamentum is separated from the serum. These processes, which art has not hitherto been able to prevent, are not less remarkable because they are common. The opinion of the celebrated Hunter on the vitality of the blood, explains very satisfactorily the cause of its coagulation; for blood, when out of the vessels, is placed in an unnatural situation, and, as it can be no longer subservient to the purposes for which it was originally intended, it consequently must lose the principle of life which blood possesses in common with every other part of an organized body; and, if (as Mr. Hunter has clearly proved) the fluidity of the blood be dependant on its containing that principle, then, it is clear, that the loss of one must be followed by a loss of the other, and that death and coagulation are connected together in the relation of cause and effect.

Mr. Hunter, however, was not content with satisfactorily clearing up this curious physiological enigma, but he went on to the establishment of an hypothesis, which he has founded on principles that are, in my opinion, erroneous. He considered the blood as being the grand seat or centre of life, from whence every other part of the body derived its vitality; and, in support of the opinion, he has adduced the well-known fact, that mortification always takes place in a limb, when, from some cause or other, its supply of blood has been completely cut off. This argument is specious, but it is not conclusive; for it is proved, by the contractions which the muscles of an apparently dead animal may be thrown into by galvanism, that the muscular fibres at least retain their vitality for some time after the circulation of the blood and the motion of the heart have ceased for ever; indeed, it is the first proof which we have of the absolute death of an animal, when he is no longer sensible to the impression of that powerful stimulus. The cessation of the

living

living actions of a part, which are carried on by the two great systems of the body, is synchronous with the apparent cessation of life; for, although the living principle be not primarily dependant on actions, it soon ceases to be inherent in a disorganized part, where actions have consequently ceased; and it is evident, that a limb, in which the circulation of the blood has ceased, is exactly placed in such a situation.

But it is assumed as a fact, by some who strictly adhere to this hypothesis of Mr. Hunter, that the functions of the sanguiferous system are carried on independent of the nervous; and, indeed, it seems necessary for them to adopt this opinion, for on no other ground could they assert that the seat of life is not in the brain as well as in the blood. It may be said, that a paralytic limb not only preserves its vitality, but that increased action may be excited in it; this, however, is a very weak argument, unless it could be proved that under such circumstances the supply of nervous energy is entirely cut off. It is, indeed, evident, that Nature never formed any thing in vain; why then, I will ask, are the secretory organs endowed with nerves? not, certainly, with the view of communicating motion to them, for, with respect to this, they are all passive; nor with the intention of exciting the calorific functions, nor of assisting in the glandular secretions, if it be assumed, as a fact, on the one hand, that the Priestleian doctrine of animal heat is correct; and, on the other, that the functions of the arterial system are carried on independent of the nervous. It is improbable also, that the sole intention of nerves, which are sent to the internal structure of glands, is to furnish them with sensation, because they are wholly independent of the will, and surely feeling is a very secondary, if at all a necessary, object to parts which are protected by considerable coverings from external violence. Hence, then, we have no other means of satisfactorily answering that question, than by admitting, that the functions of the sanguiferous system are not carried on independent of the brain; and, therefore, it must follow, as a necessary consequence, that a living solid cannot be produced from the blood, without an equal participation of the nervous energy. To illustrate this subject, let us take as an example a portion of coagulable lymph at the instant that it is secreted from the vessels, and which I will presently still further attempt to demonstrate, is the product of a reciprocal action between the nervous and arterial extremities. Now, are we to suppose, that this matter is not, at the precise period which I have mentioned, endowed with vitality?

lity? Is it not, in fact, a living solid, being the product of a living action? the answer must be in the affirmative, and still it is clear, that the endowment of this new part with arteries and nerves, or, in other words, its becoming organized, is a subsequent process; but it will be here said, that this lymph is effused or secreted from the blood, which, being the seat of life, gives vitality to whatsoever is formed from it. To this, I will answer, that as it cannot be formed without the presence and co-operation of nerves, so it is as fair to infer, that life proceeds from the brain, through the medium of the nerves, as from the blood through the medium of the vessels; for, when blood is extravasated, it immediately loses its vitality and becomes solid, and it must be by a process, entirely out of the common course of nature, to infuse life into it again, so as to become a proper receptacle or bed for vessels, nerves, and absorbents, to shoot into, and thus be transformed from a dead to a living organized solid, and be enabled to live by its own inherent powers. If, however, the vitality of all parts of the body be supported by the blood alone, from whence does this fluid in its turn receive life? for, since the body is constantly going to decay, and as constantly renewing, it is evident that the blood would soon be exhausted of its living powers, if there were not a source from whence even this may become replenished. Do the absorbent vessels carry back into the circulating system the living principle which has been separated from the worn-out parts of the body? this opinion, if adopted, would be highly ridiculous, because life is immaterial and superadded to structure. Is the blood replenished with life, as well as with its own tangible matter, from the chyle? this also is untenable, because chyle is formed out of dead matter, and owes its vitality to the change which the food undergoes by the living actions of the stomach and duodenum. Upon the whole, then, it is highly probable, that, as life is superadded to structure, so it is not particularly contained in this or that portion of an organized body, but is diffused throughout the whole; and, as blood when thrown out of the vessels, coagulates and dies, while the matter which forms the solids of the body also coagulates but lives, so I will conclude that this vital coagulated matter, which differs so essentially from coagulated blood, is the product of a reciprocal action between the arterial and nervous systems, in conjunction with the living principle; and from this action alone it receives its vitality.

Life then may be defined to be an unknown principle which pervades all matter that is susceptible of increase by

growth. It is this principle which first developes the actions of the seeds of plants, and directs the radicle to shoot downward into the earth, and the plumula to take a contrary course; and it can be no other than this living intelligence which directs the slender twigs of the bean-tree to entwine for support around the nearest prop. The actions connected with animal or vegetable existence are derived from the mechanism of structure, and are more or less numerous, simple, or intricate, in proportion as the structure is more or less complicated. The living principle is immaterial and simple, and precisely the same in vegetables and in animals. It is not the sole cause, and certainly not the effect of actions; but it may be said to direct them, in the same manner as an artisan directs the operations of a piece of machinery.

The blood, then, possesses vitality only so far as it forms a part of a living whole. When it is extravasated or thrown out of the vessels, being disjoined from that whole for ever, it consequently dies, and is mingled with the common matter of the universe. In like manner, when the actions of a part cease, in consequence of the want of blood or nervous energy, the harmony between the part and the whole being by this means destroyed, it loses its vitality, because life can no longer co-operate towards the production of actions which seem to be absolutely necessary for the union of an organized body. The living powers of the whole throws off this dead part, and it becomes common matter.

Thus have I presumed to dissent from the opinion of a man whose name will always be considered as the brightest ornament of his profession; opinions, too, which have long been held sacred because they were his. But it is necessary that I should do so, in order to give that degree of importance to the nervous system, which I am convinced it is entitled to: nor is it possible to form a rational theory on the process of secretion, if at the same time it be considered a fact, that the blood and the nerves do not act conjointly upon each other.

Every secreting gland, we know, is furnished with similar materials, namely, an artery, a nerve, and an excretory duct, and also with the same matter to work upon; and still every class of these not only produce a compound fluid peculiar to themselves, but chemistry has ascertained, that one of the constituent parts of some of these fluids is not to be found in the minutest analysis of the blood. Thus, in the bile we have the biliary matter of Berzelius, in the urine we have the urea; and Dr. Bostock informs us, that the mucous fluid differs from the albuminous in being principally composed of

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a substance which is not exactly similar to any thing in the blood.

Secretion has always been considered as a chemical process, and consequently authors, who have written on this subject, have attempted to explain it in conformity with the then-existing state of chemical knowledge. The celebrated Baron Haller in his no-less celebrated book on Physiology, has endeavoured to explain this secret work of nature conformably to rules which his predecessors had followed. In his time (when compared with the present) the modes of analysing bodies were very limited and fallacious, being chiefly confined to distillation, evaporation, roasting, &c. By the first of these processes the blood was considered to be divided into its elements, namely water, salt, earth, and a highly empereumatic oil; which last (probably the mere creature of the fire) was the residuary matter after the two first were driven off. Assuming as a fact that the blood became thus decomposed in its passage through or towards the secreting organs, he thought that some peculiarity in the form, diameter, or length, of the excretory ducts, as also a difference in the tenacity and specific gravity of the elementary parts of the blood, were sufficient to explain the phenomenon of secretion, by allowing only particular elements to pass through a particular duct or set of ducts. The adoption of reagents for the analysing of compound bodies ranks among the most important discoveries of modern chemistry. By the agency of these, the component parts of bodies have been accurately defined, and the list of simple substances considerably lessened. Notwithstanding, it is a self-evident principle, that a fluid, when changed into another, must first become decomposed; and, in proportion as this decomposition is partial or complete, must the new fluid lose the characteristic properties of its parent. The relation between the artery, vein, and excretory duct, of a secreting organ will not admit of a belief, that blood, previous to its becoming transformed into another fluid, is decomposed through the medium of a reagent, for an artery, on entering a gland, divides and subdivides into the minutest ramifications; these, at a certain part, after giving off another set of vessels (the excretory ducts), pass onward without any other distinguishing mark as to where arteries end and veins begin.

Clifton, Bristol; C. W. SMERDON.
Feb. 16, 1815.

(To be continued.)

For

For the Medical and Physical Journal.

Dr. Adams *on M. Ramond's Account of Gôitre in our last Number* (see p. 209); *with the Editor's Answer.*

YOUR last Number (p. 209) contains a valuable history of that unhappy and degraded part of our species usually known under the names of *Cretins* or *Gôitres*. At the commencement and close of your extracts, a few words are added by the Editor, referring to some writer whose name you have not thought proper to insert. Perhaps, it may be only from the general feelings of an author, that I sometimes fancy you may have referred to my publication on "Hereditary Diseases." If so, I will thank you to copy the passage to which you allude; after which, I trust yourselves and your readers will be convinced, that my opinion of the origin of this race is very different from M. Ramond's. I am, however, ready to allow, that the perusal of M. Ramond's history might have led to my inferences, and most gladly should I have availed myself of his account had it come to my knowledge before my own little work was published. To convince you how useful such a paper would have been to me, I shall, if you will permit me, in your next Number, offer some remarks upon it, and the confirmation which it seems to afford "that the same causes [the breeding *in and in*] operating in man, as Sir John Seabright informs us—and as Colonel Humfries proved experimentally in other animals, might have produced many endemic peculiarities in certain sequestered districts, which have hitherto been imputed to the water and other localities."*

Hatton-Garden. JOSEPH ADAMS, M.D.

Note from the Editors.—We are ready to admit, that Dr. Adams's work was the one to which we alluded.—We need not say how willingly we shall receive his communication, which we hope will arrive in time to appear in our next Number. The following is the note subjoined to that part of the text, which is inserted in the letter above, and which, much more than the text, induced us to add the remark at the end of our quotation from M. Ramond.

"Note 19, p. 34.—'*Many endemic peculiarities found in certain sequestered districts, which have been imputed to the water and other localities.*'

"The prevalence of certain diseases in particular districts, has always been an object of inquiry. Hippocrates ascribes many of them to the water and air of the places. This opinion has pre-

* Hereditary Diseases, p. 33 and 34.

vailed ever since his time. The improvements of modern chemistry, by a more accurate analysis of these waters, have taught us the insufficiency of many of these opinions; but we remain as much as ever in doubt, as to the real causes. The prevalence of calculous complaints in some provinces of France, was a matter of inquiry among the learned societies in that kingdom; and at different times, imputed to the wine, the beer, and the water. A comparison between the different districts evinced the fallacy of all these conclusions. That calculous, as well as most other complaints, are hereditary, I shall offer one satisfactory proof. Mr. Ferreira, an ingenious surgeon from Sicily, did me the honour to attend a course of my lectures. After having attentively listened to my remarks on hereditary diseases, he asked me, Why I had not included calculus among them? This led to a conversation, during which, I discovered the great advantage he possessed, in tracing these hereditary properties in the human race, from the great caution with which the Sicilian nobility preserve the purity of their blood, by continual intermarriages, each in their own family. This is carried so far, that one family in which elephantiasis is hereditary, disdains an alliance with any other, on account of their own elevated rank.

"I cannot help suspecting, that it will hereafter be found, that gôitre and cretinism are endemial in certain districts, from no other cause than this hereditary property. M. Gautier, who has written a long account of gôitre, assures us, that it is not hereditary; yet, he afterwards adds, 'the first circumstance noticed, is a weak constitution derived from parents, which may contribute to give a predisposition to the disease.' A general opinion prevails, that gôitre is principally confined to mountainous situations; yet no one pretends to say, that every mountainous situation produces gôitre.

"Dr. Barton, Professor of Materia Medica, &c. in Pennsylvania, enumerates the various causes assigned for this disease. These are principally impregnation of the waters with calcareous and other matters, exposure to cold and drinking cold water, insects inhabiting the water, unwholesome food, and a residence in confined vallies. Dr. Barton easily shews the insufficiency of such causes, and concludes, with imputing the disease to those exhalations of marsh miasmata which induce the intermittent fever. But surely there is the same want of uniformity between cause and effect in this as in all the other instances. Though the professor has no view to any hereditary properties, yet he mentions a family, consisting of father, mother, and four or five children, all afflicted with the gôitre; and in his description of the places, in which the disease is found, seems to speak of it in one part as confined to the Indian families, and in another, in which it is wholly restricted, to the Canadians; meaning, I presume, the Colonists. In that part of Kent which borders on Sussex, and also in the adjoining parts of the latter county, the swelled throat is extremely common, and rarely confined to a single person in the same family. Whether there could be traced any alliance in these different families, it

would be very difficult to ascertain, as the disease is principally confined to the females, who change their names on marriage, and also to the lower class, whose family connections are not so easily traced. I admit there are difficulties in the way, if, as is said by some, the inferior animals are sometimes affected; I have not, however, heard that such is the case in Derbyshire, or any other part of England. At all events, we must admit, that if the disease is excited by any local causes, the predisposition to such excitement is hereditary.

"I have never been able to learn, that ideotcy is associated with the swelled throat, any where but in the Alps; and some authors, who have given us an account of the diseases of those parts, assure us, that the union of the two is by no means universal: we cannot suppose that one cause should produce two such effects, and it is well ascertained, that ideotcy is hereditary in all its stages. Of this, Haller gives a striking instance from his own knowledge, 'Ex duabus patriciis sororibus ob divities meritos nactis cum tamen fatuis essent proximæ, novimus in nobilissimas gentes nunc a seculo retro ejus morbi manasse semina ut etiam in quarta generatione quintave omnium posterorum aliqui fatui supersint.'*—May we not then impute its general prevalence in that secluded spot, to the accidental settlement of a family in which it was hereditary to produce ideots, and to the frequent intermarriages of their descendants, which was very likely to happen, where poverty and the wildness of the country would prevent migration from, or colonization among them? It is true, that no person who has made observation on the spot, as far as my reading has extended, has taken this view of the question; but most of them visited those places under previous impressions, and all of them speak of numbers in the same family afflicted with these diseases. I have attempted a correspondence with an eminent surgeon in that part of Italy, but the unsettled state of the continent has hitherto prevented me from receiving any information."

For the Medical and Physical Journal.

Cases of Pulmonic Inflammation, illustrative of Observations on Peripneumony, inserted in the Medical and Physical Journal for November, 1814. By W. ROBERTSON, M.D. A.O.L. and C.C.E.

(*Concluded from p.* 178.)

CASE II.—September 10th, 1814. I was requested to visit Dorothy ——, a child of nine years of age, who, five days previously, had, in consequence of exposure to

* Haller, l. c.

cold, been seized with pulmonic complaints. She had been once blooded, and her side was not yet healed from the effects of a blister, ordered by the family surgeon. At the time I saw her, her respiration was performed with much difficulty, and she complained of a sense of weight rather than of pain, which she referred to a point equidistant from the sternal end of the left clavicle and insertion of the cartilage of the last true rib. Her face was much flushed, and there was a circumscribed redness on the cheek, a rawness of the tarsi, a fullness of upper lip, a protuberance and durity of abdomen, which foreboded both present and future evil; yet the eyes were not pearly, there was no night fever, no emaciation, no diarrhœa, and the expectoration excreted by a cough, which was very frequent and harassing, appeared to be frothy mucus only.* The nose and face were swelled, and gave a peculiar apish character to the countenance;† the eyes were heavy, clouded, and devoid of animation; the lips full and dark-coloured, yet dry and scaly. She complained of incessant palpitation; and the pulse was frequent, feeble, and irregular. The skin was irregularly hot and dry, though the face and neck were greasy. The belly had been kept open by clysters, but the tongue was foul. Appetite gone, and she was affected with frequent vomiting after fits of coughing. Sleep also had fled, but the body was round and plump. Fiat fonticulus ex parte vesicata ope unguenti pulveris Cantharidum Injiciatur Clysma statim.

℞. Olei Amygdalæ ʒvi.
Syrupi Tolutani ʒj.
Aquæ distillatæ ʒv. liquoris potassæ subcarbonatis q. s. ad emulsionem formandam.
Sit dosis cochliare magnum urgente tussi.

℞. Liquoris Antimonii tartarizati, Syrupi tolutani ää ʒfs.
Potassæ Nitratis ℈ij.
Misturæ Camphoræ ʒvi.
Misce sumat cochleare magnum 3tia quaque horâ utatur pediluvio—horâ somni.

Milk diet.

11th. Some moisture of skin from the diaphoretic, and much nausea, but no vomiting. Pulse 120, feeble and irregular. Face much swelled, and in some places livid. Breath-

* It is remarkable that external scrophula generally appears under puberty, and phthysis pulmonis always after it; at least it is a very rare disease in infancy.

† Aretæus mentions this appearance as characteristic of peripneumony.

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ing not relieved, supposed to be worse. Cough severe, particularly in the night. Expectoration of mucus pretty free, not tinged with blood, but there is some suspicion of pus being mixed with the mucus. Complains much of palpitation, and still more of the issue. To be kept in the erect position, or as near that posture as may be. Continuentur Medicamenta per hunc diem, ut heri præscripta.

12th. No improvement: Breathing more laborious, and expectoration less free. Face and lips more tumid, and the eye-lids nearly approximate from a glazed puffy inflation, while the whole countenance is expressive of extreme dejection and miserable anxiety. She was delirious in the night, but at present is quite collected. Skin not hot, but feels clammy and unctuous to the finger. Pulse 96, and irregular. Is unable to bear the erect posture, reclining now on her back, and she is sunk in the bed. Can take no food. Urine deeply tinged; and the last feculent discharge was clay-coloured. Abdomen less hard, but certainly larger than natural. Omittatur mistura diaphoretica, continuentur alia. To have beef-tea and wine-and-water for food and drink.

℞. Hydrargyri Submuriatis gr. ss.
Pulveris Antimonialis gr. ij.
Sacchari Albi gr. v.
Misce fiat Pulvis 4tis horis sumendus, et dosibus vespertinis & matutinis adde pulveris Opii gr. ss.

13th. Has had one copious stool, with much gripes; it is of a green colour, intermixed with gelatinous matter. Some moisture on the skin. Breathing more free, and cough easier. Pulse 100, and irregular. Urine voided in greater quantity, and of a natural colour, or paler. Has slept for some hours. Face less tumid. No appetite. Still some vacillation of mind. Much palpitation. Expectoration freer, though not so abundant as formerly. Continuentur omnia & jusculum bovinum & vinum.

14th. Has taken some beef-tea and wine. Breathing much less laborious. Cough not so troublesome. Less swelling of face, and eyes more animated. Mucous expectoration effected with more facility. Continuentur remedia.

15th. Is considerably improved in every respect. Omittatur jusculum bovinum and vinum.—To have milk diet. Continuentur medicamenta.

16th. Breathing much less laborious. Cough less troublesome, and face more natural. Continuentur medicamenta.

Note.—From this period, the patient's improvement was rapid and progressive. The mercurial medicine was continued for a few days after the pectoral complaints had disappeared; and the patient is now in her usual health. The

tarsi

tarsi of both eyes are still raw, but are improving under the use of the Unguentum Hydrargyri nitratum.

Observations.—In this case of Peripneumony, the subject was imbued with most of the marks of a scrophulous constitution, in which the use of mercury is supposed to be productive of mischievous effects; yet the treatment of this disease of peripneumony by mercury was completely successful.* There was no relapse, as in the former and subsequent cases, and this is to be attributed to the remedy being continued till the disease was entirely subdued. The complaint, from the beginning, was attended with little thoracic pain. This is very often the case. The older physicians even doubted if the lungs were susceptible of pain. Aretæus writes "simul adest thoracis gravitas, doloris absentia si solus pulmo inflammatur, quippe qui naturaliter doloris immunis sit;"† and Celsus Aurelianus observes, "gravitatio sine ullo dolore, aut cum parvo."‡ I have no doubt that this circumstance, of peripneumony being often unattended by pain, enables us in a certain degree to explain why this disease is considered to be so much less prevalent in this island than on the continent and in America. The fact is, that the complaint is often not attended to, and very frequently misunderstood, merely from the absence of acute pain. Attacks of this disease, when they do not prove fatal, terminate often in phthysis pulmonalis§ in the young, and in hydrothorax‖ in those more advanced in life. On the prevalency of these maladies, it were worse than useless to expatiate.

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* The difficulty of curing lues in scrophulous habits has tended much to confirm this opinion,—an opinion which, in many instances, might be controverted.

† De causis et signis Morb. Acut, p. 10.

‡ P. 139, lib. ii. cap. 27. See also Aëtius, tetrab. ii. serm. 4, p. 518; Trallian, lib. v. p. 241; Ægineta, lib. iii. p. 40; Celsus, p. 224. See also Van Swieton, who quotes the above authorities, vol. viii. p. 199.

§ I know that it is doubted if regular phthysis ever be produced by peripneumony, but in scrophulous constitutions, I presume, it will be admitted as a powerful exciting cause. The third case of peripneumony in this paper indubitably terminated in confirmed phthysis pulmonalis.

‖ The hydropic condition has certainly some analogy to the phlogistic, in as far as increased exhalation takes place. That the latter state passes into the former occasionally, in all the cavities of the body, we have no doubt; and we sometimes witness the same on the surface, particularly in that species of inflammation termed erythematic.

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There was some suspicion of purulent matter being excreted from the lungs in this case, in considerable quantity, but the reporter had no opportunity of ascertaining this circumstance, the suspected matter having been carelessly put aside, and no similar expectoration recurring. It appeared to the reporter, from an attentive consideration of many of the symptoms, that effusion to a certain amount had taken place previously to his being consulted; but, if such did occur, the effused fluid was probably reabsorbed. The flushing of the face was much circumscribed, as in hectic; and the eyes had from the beginning a more heavy and clouded aspect than is generally witnessed even in this disease. The cornea also showed a peculiarly dull greasy appearance. All these symptoms are well marked by Ægineta, who says, "Genæ itaque in his rubræ apparent, & occuli intumescunt, supercilia deorsum nutant, & cornea subpingues apparent." *Lib.* iii. p. 40.

On the whole, I considered the case as a very critical one, and gave an unfavourable prognosis, but was happily disappointed in the termination. There appeared to be no deficiency in the conformation of the chest; but the scrophulous habit was indicated so decidedly, that I dreaded the collision of two such diseases in so tender a subject.

Case III. *(Peripneumonia Notha.)*—March 4th, 1814. I was consulted for Mr. ——, ætatis 67, whom I knew to have been intemperate in the use of fermented liquors during many years. But, though advanced in life, he had not previously been subjected to severe indispositions. I learnt from his family that he had been confined to bed during four days, in consequence of having been seized on the first of this month, after a fit of intoxication, with shiverings alternating with hot fits, which were succeeded by cough, pain of the left side, and very considerable difficulty of breathing. I found him in the above state, with his head and shoulders elevated on pillows, and the window of his room thrown open. He complained more of the difficulty of breathing, than of the pain. Pulse 96, with an intermission after every fourth or fifth stroke. Cough incessant, with much sputum, not tinged with blood. Thirst considerable. Tongue foul and slimy. Urine high-coloured, and in small quantity. Face tumid, and of a purple colour, though his intemperance may in part have occasioned this livid colour. Lungs cannot be inflated beyond a certain point, in consequence of pain between the seventh and eighth ribs. General expression of countenance and attitude of body indicative of extreme irritability, old intemperance, much anxiety and oppression, great prostration of the moving powers, and morbid venous

accumulation

accumulation in the head and neck. Voice accords, feeble, irritable, and querulous. His age, habits, and long residence in a warm climate, have rendered his system incapable of tolerating either his disease or the remedies; the continuance of the former, and the adoption of the latter, seem to tend towards the same point; forming one of those perplexing cases of contra-indications which occasionally occur in practice. Appetite and sleep gone. Bowels costive. Refuses a clyster.

℞. Submuriatis Hydrargyri gr. iij.
Pulveris Jalapii gr. viij.
Olei Menthæ gtt. ij. fiat Bolus statim capiendus.
Applicetur lateri, Emplastrum Epispasticum satis amplum.
Mittatur sanguis ê brachio, (pleno rivo) ad ℥xij.
Utatur Mistura Mucilaginosa, urgente tussi, & Decocto hordei ad libitum.

5th.—A firm buffy coat on the blood. Breathing somewhat relieved, and the pain of side not felt. Blister produced no effect. Thirst urgent. Face grim and clouded. Eye-lids inflated, smooth and shining. Skin in colour, ochreous and dingy; to the finger clammy and unctuous. Body sunk, with the feet beyond the bed-frame. Cough incessant. One dejection from the bolus. Mittatur sanguis iterum e brachio ad ℥viij. nisi prius supervenerit syncope. (5th day of the disease). Repetatur etiam Emplastrum Cantharidis, Pulvere Meloës bene aspergendum.

℞. Liquoris Ammoniæ Acetatis ℥iij.
Aquæ Menthæ ℥x.
Syrupi ℥j.
Liquoris Antimonii tartarizati gtt. xv. fiat haustus 3tia quaque hora sumendus.

6th. Blood in the first cup covered with a buffy coat; the second not so. Breathing, cough, and pulse, as yesterday. Much nausea, but no general moisture. Blister has risen well. Face and throat more tumid, and he raves occasionally. Skin tender when touched. Continuentur Medicamenta & horâ somni utatur pediluvio.

7th. Breathing very difficult, and the sputa excreted with much exhausting labour. Face more tumid and livid. Lips blue. Eyes sunk in their orbits. Pulse 90, feeble and intermitting. Has been threatened with suffocation at different times during the day. Is now in the half-erect posture. Says "his breath is about to leave him." Anxiety and restlessness distressing. Heat below the natural standard. Moving powers nearly exhausted; and a general collapse of the system seems fast approaching, while the lungs appear to be deluged with

with blood, and their functions nearly extinct. Habeat Vini Zx. Capiat partim vitibus, Jusculum Bovinum, ad libitum. Applicetur Emplastrum Cantharidis inter scapulas, et Cataplasma (ex pulvere sinapeos, &c.) pedibus, more solito. Omittatur Mistura diaphoretica.

℞. Hydrargyri Submuriatis gr. i.
Pulveris Antimonialis gr. iij.
Pulveris Opii gr. ss.

Capiat statim & repetatur secunda quaque hora ad quartam vicem, ex syrupo papaveris albi.

To be kept in the half-erect posture. To have a pint of warm porter with sugar, at his own desire.

8th. Reaction commences apace, and the centre is relieved. A general moisture covers the whole body. Breathing less laborious. Pulse 100, and irregular, but stronger. Expectorates much bloody mucus. Cough incessant. Face livid and swollen. No stool. Tongue slimy. Intermittatur Vinum. To have a pint of warm water, with sugar, three times a-day. Continuatur Pulvis 4ta quaque horâ & Mistura Mucilaginosa & Jusculum Bovinum.

9th. Considerable amendment. Pulse 96, full, but irregular. Face less swollen and livid. Eyes more animated. Skin soft and moist, still tender to the touch. Urine copious. Cough very troublesome and exhausting. Breathing considerably improved. Sputa in small quantity. Continuatur pulvis manè & nocte & alia. Intermittatur Cerevisia & Jusculum Bovinum. Milk diet.

10th. Is much improved, though the cough is distressing. Breathing easier. Pulse 96, with intermissions. Refuses to take any more medicine. Strength so much improved, that he is sitting by a fire, and he has some appetite. Insists on his porter being continued, and he requests to have wine. Intermittatur & Vinum & Cerevisia & Jusculum Bovinum.

Note.—In consequence of the peculiar disposition of the patient, the reporter ceased in a great measure his attendance, the medicines being discontinued. He, however, understood, that four days subsequent to the last report, the patient was seized with acute pain in the left side, rapid and regular pulse, augmentation of cough and fever, constituting that species of pulmonic disease termed by Cullen Pneumonia (pleuritis), but which might, perhaps, be more appropriately designated Pulmonitis. This disease, in despite of the usual remedies, terminated on the ninth day from its commencement, in suppuration, preceded by a cessation of pain, shiverings, &c. and purulent matter, to the amount of four or five ounces, was expectorated at one time, after a severe fit of coughing, which had nearly suffocated the unfortunate

happy man. Four months subsequent to this period, the reporter was hastily summoned to visit the patient, who was found surrounded by his weeping family. His face, now pale and ghastly, was so much swollen, that not a feature could be recognised. His eyes were closed. His mouth covered with apthæ. His beard matted with pus; and from the lowest corner of his mouth flowed a stream of the same matter, which moistened his pillow. Colliquative sweats and diarrhœa had extenuated his withered body; and the few white hairs of his forehead had dropped. His nails were adunque. The angles and processes of the bones shone through the nearly diaphanous skin, which seemed suspended from point to point. His chest panted for breath. The pulse at the arm was not to be felt, yet the heart continued to beat. In a few hours thereafter he expired.

I had intended to have offered some remarks on Peripneumonia Notha, so denominated by Sydenham, and adopted by Boerhaave (though under this title they describe diseases quite dissimilar); but the great extent to which this paper has reached, precludes my encroaching further at this time on your valuable pages.

Berwick-on-Tweed; W. ROBERTSON.
Dec. 28, 1814.

For the Medical and Physical Journal.

On the Danger of mistaking certain Infantile Affections for Worm-Cases, with Remarks on the Impropriety of giving Drastic Purges and strong Anthelmintics; by J. K. WALKER, M.D.

HAVING been present, some time back, at the *dissectio cadaveris* of a child, æt. four years (a patient of a medical gentleman at a distance from this town), who had been treated with the most drastic anthelmintics with the design of destroying worms, which were supposed to have given rise to the disease, (the patient having once parted with some); I was forcibly reminded of the correctness of Dr. Hunter's opinion, who had dissected great numbers of children, supposed to have died of worm-fevers, whose complaints had been met by a corresponding treatment, and in whom the doctor observed there not only appeared on dissection to be no worms, but visible demonstrations of the disorder arising from a different source.

In the patient here alluded to, symptoms had arisen certainly very closely resembling those incident on cases of actually existing worms. There had been, for instance, great hardness, tension, deep-seated pain of the abdomen, slimy

slimy stools, griping pains, thirst and feverishness, fetid breath and fickleness of appetite, and some few worms had once been since. Yet so much had the essential part of the disease been overlooked, that a scrophulous swelling of the submaxillary glands in this patient, and alarming emaciation of the body, did not once suggest the idea of its arising from mesenteric affection; as plainly appeared on inspecting the morbid state of the mesenteric glands, which were thickened and filled with a curdy matter.

Now we know by experience, that, when the diseased affections or indurations of these glands are discovered in their incipient stage, they have often been discussed by appropriate regimen, with the occasional use of small doses of calomel, as Dr. Hamilton and other writers on scrophula have advised, conjoining, at the same time, the use of the warm-bath every night at bed-time, along with medicated friction applied to the belly evening and morning. Possibly some such method of treatment as this might have palliated, if not completely arrested, the disorder. Be this as it may, few, I think, will doubt that the use of drastic vermifuges in this patient, such as male fern, tin filings, oil of turpentine, hellebore, with a farrago of chemical and mechanical antidotes, might annihilate the worms, but would expedite the fate of the unhappy sufferer.

It is well known, that where there is a predisposition or hereditary tendency to scrophula, any long-protracted disease may call it into action, and the most trifling mark of indisposition in such a strumous diathesis, may, by neglect, go on so far as to produce the most alarming scrophulous affections; and, in children, disorders of the chylopoietic viscera are frequently the first forerunners of this proteal malady.

Though it occasionally occurs, as Dr. Darwin remarks, that the mucus of the intestines is so hardened as to line the intestines and to come away in skins, rolled up so as to resemble worms, for which they are frequently mistaken; yet it is very probable, I think, in this case, that worms did actually exist, and, as we know, that they usually produce more or less of colicky pain, with swelling and hardness of belly, &c. they might have been the first source of inducing a morbid state of the mesenteric glands; but, whether they preceded or were synchronous in their origin and progress with the glandular affection, or constituted a part of the disease, no policy, I presume, can be more disastrous than to treat such complication as if it were a simple case of worm fever, a practice too often acted up to, I fear, in the ill-defined diseases of children.

Cathartics, skilfully administered, I admit, have been usefully exhibited in mesenteric affections, but such drastic ones as are ordinarily resorted to in worm cases, if often repeated, must infallibly aggravate the symptoms. Emuller, after enumerating the best remedies for this affection, wisely adds "interpositis *blandis purgantibus*, tractentur tamen (morbi mesenterici) *caute et sine violentia*, exasperantur alias et deteriores evadunt, ob nervos tunc irritatos." In almost any other disease which may arise from, be mistaken for, or be combined with, worms, such as the infantile remittent fever, hydrocephalus, sequelæ of dentition, such active aperients, from the accustomed torpor of the bowels, are fully warranted, as many of the symptoms depend in part on intestinal irritation, or, in some cases, from absorption of their putrid contents.

Wherever, however, there is a suspicion of such a combination as I have above described, or any appearance of scrophulous taint, a prudent practitioner, I think, will defer all violent remedies, and trust to a more lenient, if more protracted, treatment. In such compound cases, those aperients, I contend, are most eligible, *of which a frequent repetition can be borne with the least debilitating tendency.* This hypothesis, I think, will obtain even in most cases of simple worm fevers. Of this sort are purging waters, particularly the sulphureous, especially if they be assisted by the frequent administration of glysters, medicated according to the discretion of the prescriber and the species of worms which infests the bowels.

In upwards of thirty cases of worms which have fallen under my care, this last half year, at the Huddersfield Dispensary, few have not experienced relief, and many the entire removal, of the complaint, without either hellebore fœtid, oil of turpentine, tin filings, or the rest of the drastic vermifuges so much in vogue. A continued use of artificial mineral waters, some in imitation of the Harrowgate, others of the Cheltenham, with the occasional use of the spigelia, and sometimes glysters or frictions, simple or medicated, over the abdomen, have succeeded in extirpating the severest cases of lumbricus or ascarides. But, when there is any latent scrophulous taint combined with the worms, as is often the case, it then becomes us to guard against any mesenteric affection, and to use gentle eccoprotics merely. I have found Dr. Butter's plan in giving the extr. conii in a mixture with small doses of sal. polychrest, with the ordinary treatment of mesenteric affections superadded, efficacious in palliating, where it has not effected a cure.

Children, it is remarked, are seldom troubled with worms before

before they are weaned, unless the mother herself be affected with them; not so with mesenteric affections invariably, or with hydrocephalus, which attack children from the age of a few months to ten or twelve years or upwards, and are more idiopathic and dangerous the earlier they attack. A mother who suckles her child, if infested with worms, will frequently communicate *per lac*. the disorder to her infant; and if she be at the same time of a strumous taint, her infant sucks in the seeds of two disorders at once.

J. K. WALKER, M.D.
Physician to the Huddersfield Dispensary.

For the Medical and Physical Journal.

Suggestions relative to the Treatment of Rabies Contagiosa; by Mr. W. GUY.

"Non decet equidem priorum vestigia contemnere; sed permissum et nobis est et invenire aliquid, et mutare, et relinquere. Qui ante nos scripserunt, non domini sed duces nostri fuerunt; crescunt hæc indies, et inventis inventa non obstant: multum subinde etiam futuris relinquitur."

IT has been well remarked, that "if the prospect of that which remains to be done, after the labours of so many ages, tends to abate hope, and to discourage endeavour; yet it should be remembered, that no man can determine the measure of success which may be connected with industrious research and zealous exertion; and that whatever may be the degree of advancement of which the medical art is capable, he who endeavours to perfect it, has the satisfaction at least of knowing, that he is fulfilling his duty, when his efforts are directed to alleviate the sorrows, and diminish the sufferings, of mankind.

By such feelings the physician is undoubtedly greatly supported, when, in his professional capacity, he is encountering the numerous and dreadful calamities to which human nature is subject; and in no case can he stand in greater need of such consolation, than when contending with the malady which forms the subject of this paper. In truth, a more distressing situation can hardly offer itself to a feeling mind, than that in which a physician is placed, when called upon to attend a patient labouring under Rabies Contagiosa: for, whilst, on the one hand, he feels himself not justified in pursuing plans which have uniformly failed; yet, on the other, he is full of despair, not knowing of any more likely to succeed. Hence, vacillating between opposite plans, and contending opinions, he hesitates, whether, with Dr. Rush, he

he should, in order to save his patient's life, perform tracheotomy; or whether, with Dr. Shoolbred, he should bleed him nearly to death, for the same purpose. Whether immerse him in a hot bath of oil or water, or nearly drown him in a cold one. Whether he should blister, galvanize, or electrify; or, by the aid of opium, drown his senses, and lay him to sleep for ever. And probably, after having used his best endeavours for his patient's recovery, his practice may be criticised by some, because he, perhaps, omitted to call into his aid mercury or antimony, copper or zinc, iron or arsenic, bark or camphor, musk or assafœtida, &c. &c. each of which has had an advocate. Under such perplexities, it is surely natural to endeavour to think for ourselves, and, if possible, to emancipate ourselves from such shackles; and the more so when we take it into our consideration, that not one of the many remedies hitherto suggested have ever saved a single patient.

Strongly impressed, as I confess myself to be, with these considerations, I hope my motives in this address will not be misconstrued; and, as I renounce all intention of dictating what steps ought to be pursued in the treatment of this hitherto-fatal malady, so I trust, by submitting for further consideration the plan of treatment I should certainly adopt, if called in to the case of a rabid patient, I shall, in the eyes of the candid at least, stand acquitted of voluntary presumption, and that they will the rather attribute it to its true source—the discharge of a professional duty; but, before I proceed to this step, I shall beg leave to introduce a few preliminary remarks.

I believe it is very generally admitted, that, in the canine race at least, when a bite has been inflicted by a mad dog upon another, the saliva inserted at the same moment has the power, after lying dormant a certain time, of entering into the habit, and of vitiating the saliva, of the bitten dog, and of rendering it, in its turn, equally virulent and infectious. Nor does there appear any reason to believe, at least it has never been either asserted, or attempted to be proved, that in any of the fluids secreted in the rabid animal, except the saliva, a similar noxious principle exists; in fact, its virulent effects seem wholly confined to that secretion.

Now, if we compare the saliva of a man and dog in health, they have really a great similitude in their nature; and, supposing them subject to the same laws, there may surely be a considerable degree of probability in supposing, that, when a rabid animal bites one of the human race, and he in process of time becomes rabid, the same vitiated state

of

of the saliva exists in him; that the virus is wholly confined to the secreting surfaces and glands of the throat; and that, like the dog, all his other secretions are equally as innoxious as in health.

But, in order to determine whether, in these conclusions, analogy may have deceived us, I earnestly recommend that the earliest opportunity be embraced of putting it to the test of experiment, by inoculating a dog with the saliva of a human being labouring under the disorder. Should rabies succeed, the question will be set at rest. Saliva when most redundant, near the fatal issue, to be selected for trial.

I, however, am anxious to proceed still further. As vitiated secretions have been accurately examined,—the urine to wit,—and a better mode of treating calculous complaints has been suggested by the research, I must strongly enforce another experiment to be made respecting this virus, namely, carefully to examine, by chemical tests, the saliva of a rabid animal, as also that of a human being labouring under the same complaint; to mark in what circumstances they may agree or differ from each other, and also to point out what constitutes the difference between the two and healthy saliva. From such an examination, should we be enabled to detect the principle which constitutes the virus, and to point out how far it may depend upon an acrid volatile salt, or an acid. We might then be able, by proper remedies, to neutralize it, and thus render it inert. That this virus is of an acid nature, is earnestly contended for by Dr. Heysham, in his Inaugural Thesis; 1777; Edinb.

Till these two (I must deem them important) experiments shall have been made, we must be content to be led, in some degree at least, by analogy. Taking it, therefore, for granted that the saliva in the human being, when rabid, is equally infectious with that of the dog, I shall go a step further; and, supposing the virus to be an acid, I shall place my chief reliance on the use of an alkali, for the purpose of neutralising it. I confess I place more confidence in it, from a remark in the 3d vol. of Dr. Ferriar's Medical Histories, where it is asserted by Mr. Simmons that forty persons, bitten by mad dogs, applied, within a fortnight, at the Manchester Infirmary; that, being treated by the Kali purum applied to the wounded parts, they all escaped the disease; and that the same success has attended the application of this remedy in his practice during twenty years. He recommends its use to the parts which have been even treated with excision. As, from this account, he appears to have depended upon its efficacy *alone*, without excision, it certainly

affords some grounds to believe that it acts powerfully on the virus.

I shall now proceed briefly to state, under the five following heads, the particular objects I have in view in the treatment I should adopt, in a case of this dreadful malady, and also other means and remedies that appear best adapted, at least in my estimation, to fulfil the proposed intentions.

1st. To discharge, as much as possible, the saliva which probably contains the virus.

2dly. To endeavour to neutralize it, and thus to render it innoxious.

3dly. To support the patient by every means in our power.

4thly. To keep him in as perfectly a tranquil state as his circumstances and situation will admit, during the eventful struggle.

5thly. That, as not more than three or four days are allowed for the trial of our remedies, to proportion them to the impending danger.

To answer the first indication, as soon as the fact of hydrophobia is satisfactorily established, I should commence with an emetic, two or three grains of emetic tartar in a pill, for the sole purpose of evacuating the vitiated saliva from the stomach, throat, and fauces; and this I should repeat night and morning. The good effects which appear to have been derived in Dr. Satterley's case from an emetic were, probably, owing to its having answered the above purpose.

To fulfil the second object, I should recommend salt of tartar and sugar, equal parts; a portion of this to be licked up by the patient every half hour, day and night; to suffer it gradually to dissolve and mix with the saliva, which may be then expectorated.

With respect to the third indication, I should strictly forbid all sustenance by the mouth, and supply its place by a glyster to be injected every six or eight hours, composed of four ounces of Port wine, with an equal quantity of strong broth; to which may be added, as circumstances require, one drachm of laudanum. As, in cases of obstructed deglutition, the strength of the patient is thus supported for an almost indefinite period, no danger, in the short space of three or four days, can possibly arise, in the case under consideration, from inanition.

As to the fourth object, I should deem it a duty of the first consideration to avoid, as much as possible, every thing that may have the most distant tendency to produce spasm, or to agitate my patient's spirits. And here I cannot sufficiently

ciently deprecate the practice that has been much too generally adopted, of constantly and repeatedly urging the unhappy sufferer to drink, to dip his hands in water, &c. &c. Every such request is, in truth, little less than so many appeals made to him to strangle himself. On the contrary, the inability to swallow having been once satisfactorily ascertained, no reason under heaven should induce us to make a second trial, until the patient demands it.

Lastly, as our time is so very short, our sheet anchor, the alkali, should be given every half hour through the day, and at least every half hour through the night, that the saliva which is constantly collecting, and greatly increases as the disorder advances, may be neutralized. The necessity of this diligent attention must be obvious, for, if I am correct in my conjecture, the saliva, as I have before hinted, both in the canine and human race, when labouring under Rabies contagiosa, will be found equally vitiated and infectious; and the salivary glands, and secreting surfaces of the throat, appear to be the only laboratory in which this virus is prepared and dispersed. This exhibits, in a strong point of view, the reason why the means hitherto adopted for the cure have uniformly failed. It is likewise greatly in favour of its locality, if I may so express myself, that the result of many careful dissections has proved most satisfactorily, that in many cases, may we not say in all? no local inflammation, nor any other assignable cause, could be detected, sufficient to account for the symptoms of this dreadful malady. The disease, it is evident, from all its symptoms and sensations, has a much nearer affinity to spasm than to inflammation; and the patient appears to fall a victim to excessive irritability. I shall only further observe, that, should the above plan not succeed, "the absolute failure," as Dr. Parry very judiciously remarks with respect to bleeding in this disease, "leaves us, as to the event, precisely where we were; and, if we can merely alleviate certain symptoms, and smooth the avenues of death, some good is doubtless obtained."

Chichester;
March 2, 1815.

WILLIAM GUY.

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

Exposé of the State of Medicine in France during the year 1814, *being the Anniversary Discourse of* BARON DES GENETTES, *as President of the Faculty of Medicine of Paris.*

GENTLEMEN,

A YEAR has elapsed since one of our number, according to custom, opened the schools of medicine, by taking a view of the progress of medical knowledge during the preceding year.

The circumstances of the world were then such as have rarely occurred in the annals of nations. All the military forces of Europe, humbled so many years by our triumphs, began to drive us back upon our own frontiers, innumerable armies subsequently passed them, and after many sanguinary battles, they arrived at the gates of this capital, into which, however, they did not penetrate, until peace was restored to France, and to nearly the whole world.

Under such embarrassing circumstances, Gentlemen, you never shut up your schools nor interrupted your functions. Uniting, almost all of you, the practice of the art to the teaching of its theories, you in a manner multiplied yourselves to assist the victims of war, and to lavish your cares on our countrymen, and upon strangers, who are no longer enemies.

Those who have preceded me in this chair, have introduced the most interesting subjects: they have exhausted all that can be said as to the extensiveness of our plan of instruction.

I shall therefore confine myself to the exposition of our labours; afterwards do homage to the memory of such of our colleagues as have been recently taken from us; and lastly, fix the public attention of their fellow pupils on such of our students as shall receive the prizes this day awarded.

Baron Boyer, our colleague, has published in the course of the year a "Treatise on Chirurgical Diseases and Operations." The author of this important work thinks that the progress of modern surgery has been so rapid and remarkable, that it seems to have attained the highest degree of perfection of which it is susceptible. The greater part of surgical diseases are now perfectly well known, both with respect to their phenomena or the indications which they present. We may even frequently ascertain their proximate causes, determine their essential character, and consequently the best

best treatment. Instruments and apparatus are simplified from day to day; and the application of medicaments is better understood.

Therapeutics and Hygiena, which sometimes of itself supplies their place, and always aids them, belong to both branches of the medical art; the improvement of the therapeutic and hygienic methods, therefore, equally ensure the success of internal and external applications; a new proof, among many others, of the indispensible necessity of rendering common to medicine and surgery the same institutions, and consequently the same sources of instruction.

Improvements so great, admitted by the whole world, and the chief glory of which is cheerfully conceded to the French, have rendered necessary the new publication of an entire body of chirurgical doctrine, to unite, in a treatise of a size at once convenient and elementary, knowledge scattered in books which would form a library.

M. Boyer, after the example of some of the restorers and promoters of the art, divides surgical pathology into two great parts. The first is dedicated to the diseases which appear in every part of the body, and is subdivided into several chapters, in which he treats of inflammation in general, of abscess, gangrene, burns, wounds, tumours, ulcers, and the various diseases of the bones and articulations.

The second part, drawn up after an arrangement purely anatomical, embraces the diseases peculiar to each organ. Most of the diseases which require surgical operations are referred to this division.

The author informs us, that it never was his intention to annex a complete treatise on operations, which would require immense labour. For these he refers to particular works on operative surgery, more especially to that recently published by M. Roux, adding, that the union of this work with his own will form a complete system of surgery.

On witnessing this association of a man of consummate experience with one who is still young, let those who are ignorant, or pretend to be so, of the state of our present method of instruction, cease to indulge in absurd declamations! Let them no longer repeat, in the face of direct evidence, that our school has never formed, and never will form, surgeons. We shall answer them by telling them that Richerand, Dupuytren, and Desormeaux, were seated on the benches of this school, before they sat among its professors; and that the former students of this school, such as Ribes, Tartra, Marjolin, Baffos, Beauchêne, Murat, Beclar, Baron, Brechet, and several others, promise to be the worthy successors of those who are now at the head of French surgery.

On reading M. Boyer's work, as well for my own instruction, as to give an account of it at this meeting, I could not refrain from making some reflections on the chapter entitled "On the Gangrene produced by Freezing." An eye-witness of the disasters which

attended the retreat from Moscow, I had an opportunity of observing, in an almost innumerable mass of men, the effects of the most rigorous cold.

I pass over in silence that perfidious sleep which fixes the body on a frozen bed, and induces inevitable death.

The doctrines of M. Boyer are entirely conformable to my own observations. To describe our sufferings would be to copy his whole chapter. Let us merely quote a few lines: "A sudden augmentation of very intense cold," says M. Boyer, "particularly when it is accompanied with wind, frequently occasions gangrenous affections and sudden death." We saw all this but too well verified, when, on the shores of the Beresina, a very violent north wind covered our faces with flakes of snow. The thermometer then stood at 21° below the freezing point; and it fell a few days afterwards to 24°, and even to 27°.

In another place M. Boyer says: "It has been thought that the cold extinguished the vital action, merely by coagulating the animal fluids; but the phenomena which accompany freezing announce that the cold acts on the solids also, and particularly on the vessels and nerves. It acts on the former by diminishing and even extinguishing their organic action; on the latter by blunting their sensibility, and thus preventing the exercise of their functions." We may go farther, and indicate a mode of action of cold, little known, a very intense effect on the brain and nerves, even when congelation has not attacked any part of the body at a distance from the centre of circulation. We have seen men, marching with every appearance of muscular energy, and the most decided and soldier-like pace, and heard them suddenly complain *that* a thick veil was covering their eyes. These organs, at first for an instant haggard, soon became immoveable; all the muscular apparatus of the neck, and more particularly the *sternocleido-mastoidei* muscles, became rigid, and gradually fixed the head on the right or left shoulder. The rigidity next extended to the trunk; the lower extremities then tottered, and the unhappy victim fell upon the ground, exhibiting, to complete the frightful picture, all the symptoms of catalepsy or epilepsy.

But to return to M. Boyer and his work: he has not entered into any details respecting the history of the art; he has not even indulged in a quotation, for this would not accord with his plan. "He is anxious (I copy his own expressions) to show what is proper to be done, and not what has been done, upon this or that occasion."

A professor, who, like M. Boyer, has been long in the practice of lecturing, must occasionally find his own ideas in circulation. He has, in fact, recognised some, and has informed the public of them, that he might not pass for the plagiarist of those who have actually copied from him.

In a word, the work of which we have just given a slight sketch, is worthy of M. Boyer's high reputation.

Professor Richerand has also published, in the course of the year, the sixth edition of his Physiology. Although not essentially

tially different from the former editions, and, although the same arrangement is preserved, yet several points of doctrine have undergone modifications, corrections, and important additions. Some articles, which were formerly too concise, have received the desired extension. Taking advantage, in short, of the labours which daily enrich physiology, M. Richerand has learned how to found them, and to appropriate them to himself, so as to justify the title of "New Elements," which his celebrated work bears, the preceding editions of which have been already translated into several languages.

M. Alphonsus Leroy, another of our colleagues, has published a little treatise "On the Contagion which lately raged among the Cows, Oxen, and even the Human Race, in some Parts of France." He has therein discussed the causes of contagion, with the means of remedying and preventing them; and concludes by some reflections on the utility of extensive public lazarettos.

M. Leroy confesses that his work was hastily drawn up, on the spur of the moment, arising from the alarm of an approaching contagion which threatened the department of the Aisne, where, fortunately, however, it did not break out. The treatise is as it were a detached portion of an extensive work which presents ideas in many respects new, but which are not yet arrived at the degree of maturity to which the author proposes to extend them.

M. Leroy, in his ardour for the advancement of medical science, and more particularly that branch which relates to the health of the female sex, has had the boldness to advise, in a case of schirrous uterus, the revival of the operation first practised by Osiander, and since executed by M. Depuytren with all the dexterity for which he is distinguished. I merely indicate these subjects, leaving it to our colleagues to give the interesting details to the public, if they think proper.

Our colleague, M. Petit Radel, continues to be occupied in editing several articles for the *Encyclopedie Methodique*. We know that almost the whole of the surgical part of this grand dictionary has been executed of late by this laborious professor. We shall find, in succeeding numbers, several medical articles, by M. Petit Radel; among others, those which relate to hereditary, moral, nervous, organic, rheumatic, soporific, and syphilitic diseases. We shall also therein find the article "Ancient and Modern Physicians, as well religious as atheistical."

It could not be difficult for our colleague to prove the religious character of several of our professional brethren, but has he shewn with equal clearness that others among them have merited the reproach of atheism? Is not this rather one of those outrages inconsiderately committed upon great minds by the intolerance of ignorant sectaries, or by the interested supporters of the most ridiculous superstition? We see, on the contrary, that, even in the days of polytheism, the religion of the physicians, in conformity to reason, rose above vulgar credulity. How exemplary and beautiful was the worship of Galen, when, exploring the remains of men and

animals, the structure of which he was studying, he said to the gods: "I shall describe these wonders, and they shall serve as the hymns by which I shall celebrate your power!"

The alarm, more or less well founded, relative to the introduction into the capital of a contagious fever, which raged in several places where the armies were quartered and fought, or left sick behind them, gave rise to instructions which were drawn up by the Faculty of Medicine. I shall respect the modesty of those who drew up these papers, and omit, like themselves, to publish their names.

Many physicians and students of our faculty have been sent to give assistance to the menaced and actually diseased departments. Others have been of great service in the hospitals of Paris, while several have fallen victims to their humane exertions. Brilliant rewards have signalized the names of part of the survivors, and all have acquired just claims on the public gratitude.

Among the inaugural dissertations presented to the Faculty in the course of the year, the following have been particularly remarked. I cite them in the chronological order in which they appeared.

1. Analytical Researches on various Affections, in which the Skin presents a Blue Colour, and in particular on those which have been designated by the name of Cyanose. By M. Gintrac.

2. Dissertation on the Plague, or Adeno-Nervous Fever. By M. Le Breton, of Rhodoste in Greece.

3. Observations intended to resolve the Question: Is the Apoplexy which is produced by an Afflux of Blood to the Brain, susceptible of Cure? By M. Riobé.

We shall now speak of the labours of the Members of the Society of Medicine, which we purposely confound with those of the Faculty of Medicine itself.

M. Alibert has given a new edition of his Elements of Therapeutics and Materia Medica. This work, which was translated as soon as it appeared into several languages, has been long diffused and received among the most celebrated medical schools of Europe. Nothing can be more judicious than the course pursued by the author in this imperfect work, which is the result of much profound and well-directed study.

The Precis of M. Alibert respecting Mineral Waters has this year received many important additions.

His great work on the Diseases of the Skin sustains its reputation. The ninth number, which treats of syphilitic affections, is full of striking matter. The rare perfection which we see in the execution of the plates, gives a great interest to those objects, hideous as they are. We expect with a lively impatience the continuation of this magnificent work, in which scrofulous cutaneous diseases will be treated.

M. Roux has published a "Memoir and Observations on the immediate Union of the Wound after the circular Amputation of the Limbs in their continuity, and particularly after the Amputation of the

the Thigh," which were read to the class of Physics and Mathematics of the Institute on the 21st of March, 1814.

This paper, the object of which is to discuss and revive, from observations actually made, methods which have been rejected, opposed, or laid aside, has been sufficiently appreciated, and has received the encouragement which it deserves, in a report by Messrs. Percy and Deschamps, adopted by the Institute, and published at the end of their Memoirs and Observations for the Year.

M. Roux has added a curious case of a Divergent Strabismus of the right Eye, cured in an adult, who was affected with it from infancy.

We are of opinion that concerning a deformity in an organ so sensible as the eye, not only are repeated experiments requisite, but there must also be a permanency in the relief or the cure, ere we can decide upon the merit of the method, and ascertain, if we may be allowed the expression, what is truly specific.

Since the publication of the work just announced, M. Roux has made a visit to London, and we are assured that he intends to publish some observations in order to make us acquainted with the particular practice of the most eminent surgeons of that capital. Such communications must be very instructive when coming from enlightened and impartial men, who have had time to look calmly around them. It will be at once advantageous and pleasing to know, after so long an interruption of our intercourse, who are now-a-days the successors or rivals of Pott, John Hunter, Keate, and Blizard.

M. Nysten has published "A Dictionary of Medicine, and of the accessory Sciences," 1 vol. 8vo. This work cannot fail to be very useful to students.

And why should we omit an important work composed by a young Spanish physician, who graduated with our Faculty, and, by the circumstances of the times, became in some measure one of our adopted sons?

M. Orfila, the gentleman in question, has this year published a "Treatise on Poisons from Minerals, Vegetables, and Animals." This general toxology is drawn up with a due regard to physiology, pathology, and medical jurisprudence. Such a work, put forth with the assistance of several experiments and accurate observations, ought to be the better received, as it was really a desideratum in medicine and jurisprudence: in fact, all preceding treatises are, without exception, incomplete, inaccurate, and far behind the present state of our knowledge.

M. Orfila, in the first place, carefully describes the physical and sensible characters of poisons, in their simple and natural state; and afterwards indicates the chemical properties of those substances, noting with great exactness the phenomena which they exhibit by means of the greatest possible number of re-agents.

M. Orfila afterwards shews the differences which poison, when mixed with food of various kinds, presents with the same re-agents.

But

But what most concerns our art and the public security, is the indication of the best methods of arresting the action or incipient effects of poisons, and of remedying the disorders which they have already produced on the animal economy.

We think it right to observe, that we have promoted, of late years, to the degree of Doctor of Medicine, several Spaniards of the greatest promise. They have sustained in the midst of us, by the lustre of their talents, a valuable portion of the national honour; while the majority of their fellow countrymen, full of the recollection of the valorous achievements of their ancestors, have broken the yoke which an execrable tyrant sought to impose on them.

The Bulletin of the Faculty and of the Society of Medicine, the editing of which is confided to Professor Dumeril, has communicated to the world, more or less in detail, whatever has been most interesting to the profession. We may remark in particular, in a recent number, the extract of an observation on the ligature of the external iliac artery, communicated by M. Bouchet, chief surgeon to the Hotel Dieu of Lyons. This fact, with the manner in which it was brought forward, and the reflections which it occasioned in the Society, remind us of the most flourishing days of the old Royal Academy of Surgery.

I must now call your attention to the losses which we have experienced. We have already observed, that the faculty of medicine, and the society formed in its bosom, are indissolubly knit together. It is thus, as a member of the society which forms part of our school, that I shall express our common regret for the loss of one who honoured me with his particular regard, Charles Louis Dumas. When, upon the death of Grimaud, cut off from his professional career at the age of thirty-seven, it was you, Dumas, who placed yourself in the ranks to succeed him; you saw, without regret, the crown adjudged to Fouquet, who, at the age of sixty-five, could no longer have any rivals. Another chair became vacant by the death of M. Sabatier, and the keeper of the seals of France, who honoured you with his esteem, wished you to fill it. Afraid, lest it should appear that you were indebted to favour, and not to your own merits, you scrupled not to redescend into the arena.

The writings of Dumas may be classed under three different heads. The first belong to the institutions or elements, and are purely anatomical or anatomico-physiological; the second relate to practical medicine; and the third class is composed of various isolated pieces, such as memoirs, observations, discourses, and eloges.

We shall take a cursory view of these various productions, not according to the division which we have established, but in chronological order, which will best exhibit the progress and history of his mind.

Dumas made his debut in 1785, at the age of twenty only, by an

an inaugural dissertation upon "Life." This first performance indicates the direction which his mind took and constantly preserved from that moment.

A short time afterwards, he was a candidate for a prize proposed by the Royal Society of Medicine. It was required "to determine in what species, and at what period, of chronic diseases, fever may be useful or dangerous, and with what precaution we ought to excite or moderate it in their treatment." The memoir published by Dumas on this occasion is a judicious selection of the opinions of the best authors. Before the age of experience, we can only resolve similar questions in this way. The prize was divided between Dumas and M. Pujol, formerly a practitioner at Castres in Languedoc.

Dumas published, for the competition of the year 1790, to which we have alluded, a Series of Theses, which, conformably to the custom of the faculty of Montpelier, were composed, distributed, and sustained, within the space of fifteen days.*

In

* Quæstiones medicæ duodecim, propositæ pro regiâ cathedrâ vacante per obitum D. Joannis Sabatier, quas propugnabit triduo integro mane et seró, diebus 4, 5, et 6, mensis Novembris anni 1790, in augustissimo Ludovicæo Monspeliensi Carolus-Ludovicus Dumas.—Quæstio I. Quantum contulerit schola Monspeliensis in promovendis chimiæ túm philosophicæ, túm practicæ, progressíbus?—Quæst. II. An quodlibet morbi genus à causâ sibi propriâ excitetur, ita ut tot diathesium, quot morborum genera diversa admitti debeant?—Quæst. III. Quare navigatores morbis exanthematicis, febribus, etc., in Europâ laborantes, iis sub æquatore et in Americâ, absque ullo artis auxilio, subitò quasi liberentur, reduces verò in Europam ipsis rursùs corripiantur, et vice versâ?—Quæst. IV. Quid ex vasorum lymphaticorum cum textu cellulari connexione, ex absorbente illorum officio et structurâ, censendum sit de humorum in ipsis vasis motu retrogrado, et per textum cellularem transitu?—Quæst. V. An doctrina veterum circa crises et dies criticos sit constans et certa? Quonam fundamento innitatur dissensus auctorum circa hanc doctrinam?—Quæst. VI. An detur legitima suppurationis distinctio? Quid ad therapeiam conferat? Num ex illâ canones practici deduci possint ad felicem ulcerum curationem?—Quæst. VII. An dentur morbi, et quinam á veteribus medicis descripti nunc evanidi?—Quinam verò nostrâ ætate vigentes veteribus ignoti?—Quæst. VIII. De magnetismo animali, de somnambulatione et somnambulorum vaticiniis judicium medicum.—Quæst. IX. An in morbis acutis satius sit crises congruis auxiliis antevertere, quàm ægros crisium periculo exponere?—Quæst. X. Febrium in genere theoriam et therapeiam exponere.—Quæst. XI. An omninò respuenda sit, et è foro medico dejicienda consideratio influxûs planetarum et siderum; nempè phasium lunæ, dierum canicularium, solsticiorum et æquinoxiorum recursûs in corpus tùm sanum, tùm ægrotum? An potiùs in dubiis comprobetur

In 1791, Dumas gave an edition of the "Complete Course of Fevers," of the late De Grimaud, in 4 vols. 8vo. conformably to an autograph copy specified in the testament of the estimable author. Dumas was anticipated a few months or weeks by a self-elected editor, who, without delicacy, published the same work in three volumes only, and in the same form. The opinions of medical men are divided as to the merit of the two editions.

Dumas was associated the same year with M. Petit D'Arsen, in translating "An Essay on the Nature and Treatment of Pulmonary Consumption;" written in English by Thomas Reid. This work contains only one fact and its inductions. This fact is, that the vomiting arising from sea-sickness has been known to give relief in incipient phthysis. The inductions are, that repeated emetics, in small doses, might be useful in the treatment in the same disease, and in the same stage. Without discussing the merits of the original work, we may affirm, that the translators, by adding a preface and notes, have succeeded in making a far better book.

Elected professor of Anatomy and Physiology in 1795, Dumas published in 1797, in 1 vol. 4to. a Treatise on Myology, after the manner of Winslow, Albinus, and Chaussier. This work is entitled, "Methodical System of the Nomenclature and Classification of the Muscles of the Human Body, with Descriptive Tables for recalling their Ancient Names, their New Names, Situation, Attachments, Direction, Composition, Figure, Connection, and Use." A dictionary containing the whole *synonymy* of the muscles terminates this treatise. It is an imitation and an extension of the work of one of our colleagues, whom we have mentioned constantly, preceded by general principles and reflections on the formation of languages.

Dumas published, in 1800, and in 4 vols. 8vo. his Principles of Physiology, or Introduction to the Experimental, Philosophical, and Medical Knowledge of the Living Man." He brings forward with address whatever was most important on this subject, grounding his opinions in preference upon the writings of Stahl, Haller, and Grimaud. Another person, who approached in some respects the first, who, in point of erudition, equalled the second, and who surpassed the third in every respect, (I mean Barthez,) was offended at the silence of Dumas, who, in borrowing several of his ideas, had forgotten to acknowledge their author. Barthez had a right to complain, and he did so, with that air of authority which was peculiar to him, and which he but too strictly maintained in this discussion.

I pass over slightly the "Physiological Sketch on the Transformation of the Organs."—*Journal de Physique*, 1805 and 1806.

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observationibus quod non exigui sit momenti talis consideratio? —Quæst. XII. Utrum et quâ ratione partium tàm solidarum, tàm mollium regenerationem ars promovere, juvare, coercere, præpedire queat?

T-

To believe that the stomach can fulfil the functions of the brain, and, *vice versâ*, the brain those of the stomach, would be to return to the chimerical ideas of Paracelsus and Van Helmont. It was quite in a different spirit that Dumas published an observation, that does great honour to his talents, on the subject of an epilepsy rendered intermittent, and afterwards cured by the administration of bark.—*Journal de Medicine.*

Dumas pronounced, in 1804, a Discourse on the future Progress of the Science of Man. His hopes were founded on the continuation of the application of analysis, and the perfection of the faculty of observation.

A new edition of his Physiology, as before in 4 vols. 8vo. appeared in 1806.

The Eloges of Fouquet and Dorthey, published the first in 1807, and the second in 1808, are two papers which do equal honour to the head and heart of Dumas. He had, it is true, in praising the former, merely to repeat what medical Europe had proclaimed for thirty years; but he had to make known in the latter a man nearly of the same age with himself, a former competitor for the same chair, and a rival for glory in the same school; although Dorthey, in a more especial manner, cultivated other branches of the natural sciences, in which he has left a great name.

We now come to a period of his life when Dumas published a work more original, and more peculiarly his own, if I may be allowed the expression, than any of the foregoing. It is the best of his productions, and also the last.

The treatise of Dumas on "Chronic Diseases," is divided into four parts. In the first, he explains the essential phenomena of these diseases, and the differences which exist between them and acute diseases. The second part explains the theory of the formation of chronic diseases. In the third part, he examines the modifications produced in diseases, by age, sex, passions, and influence of climate. The last and fourth part exhibits the application of the distinction of the elementary affections to the treatment of diseases.

This work, although very extensive, remained imperfect until it was followed by a volume of developments and applications to a great number of observations. When Dumas wrote this treatise, which appeared at Paris in 1812, he enjoyed a high reputation, which could only be increased by it: he was surrounded by that consideration which his talents and his eminent social qualities merited. Finally, he was loaded with academical, literary, and other honours of every kind, when he died at Montpelier, on the 8d of April, 1813, at the age of 47.

We have still another heavy loss to deplore, and it is still more recent and more premature; we mean that of Julien-Jean-Cæsar Le Gallois, who died in February last.

Professor Dumeril has already published a very interesting account of Le Gallois. The son of an honest agriculturist in easy circumstances, he received a liberal education: he gave early signs

of talent, and, on finishing his studies, he felt a *penchant* for medicine, which he studied in the university of Caen, which reckoned, among its medical professors, Chibourg, Le Canu, and Rousell, and which had produced Vicq-d'Azyr, Thouret, and Vauquelin. The revolution about this period assumed a most frightful shape. Those who still retained some sentiments of commiseration and some ideas of equity, and the young in particular, burning with indignation, ranged themselves under the standard of a party which has since been distinguished—that of *Federalism*. Le Gallois became, under these circumstances, one of the leaders of the students. It is useless, impolitic, and perhaps dangerous, to dwell upon those times of calamity: suffice it to say, that the party in question was crushed in Calvados as well as throughout France, and that Le Gallois, obliged to fly, hid himself first at Paris, where he was discovered; that he took refuge among the sciences, and was so fortunate as to be employed in the manufacture of saltpetre in a department at a distance from the capital. Upon the formation of the three schools of medicine he returned to Paris, where he was received as one of the pupils from the departments; among his fellow students, he was distinguished, and began by fixing the attention of the learned world upon him by his Thesis for the doctorate on the following question: "Is the blood identically the same in all the vessels which it passes through?" This production announced a man of science, who was determined to proceed in his studies by the thorny, but otherwise fertile, road of experience.

Le Gallois shortly afterwards took part in the discussions occasioned by the famous thesis of Boulet, who, in an ingenious and erudite paradox, threw some doubt on the existence of Hippocrates.*

Suddenly,

* This thesis was entitled, "Dubitationes de Hippocratis vita, patria, geneologia, forsan mythologicis; et de quibusdam ejus libris, multo antiquioribus vulgo quam creditur, Dissertatio medico-historica, quam sistit et tueri conabitur die secunda mensis pluv. an. XII. præside Petro Sue, J. B. J. Boulet [Headinensis] Medicus Insulanus, &c." The examiners were Messrs. Thouret, Lereux, Petit Radel, Des Genettes, and Dumeril. The candidate was remarkable by a most decent and modest exterior, and an easy and brilliant elocution. He was, besides, advantageously known as one of the chief editors of Dessault's Journal de Chirurgie.

Le Gallois published soon afterwards, in the Journal General de Medicine, an article with the title of "Chronological Researches concerning Hippocrates." Admitting that M. Boulet had directed his attack with great skill and erudition, Le Gallois concluded that Hippocrates lived during the Peloponesian war; first, because no writer, previous to that war, had made any mention of him; secondly, because some points of his doctrine are manifestly

Suddenly, a grand idea struck Le Gallois and absorbed all the faculties of his mind. He sought for the solution of the boldest problem,—for, he sought nothing less than the discovery of the principle of life!

The history of the sciences exhibits to us the first chemists as almost all occupied for centuries with the transmutation of the metals and the universal panacea. They could neither create gold nor prolong the life of men, and yet they enriched the arts with numerous useful processes, and medicine with several very powerful remedies.

Le Gallois did not succeed any more than they in determining in what life precisely consists, and, perhaps, it is not given to the feeble intelligence of man to discover the primordial laws of the great phenomena of our organization; but, in seeking for the solution of a question still undecided, Le Gallois threw great light on several very important points in physiology. He is, in this respect, the most distinguished man which our school has produced since Bichat.

The labours of Le Gallois are contained in a work entitled "Experiments on the Principle of Life, particularly on that of the Motion of the Heart, and on the Seat of this Principle." This valuable collection of facts has produced a work equally important; viz. the report made on this subject to the first class of the Institute, by Baron Humboldt, so dear to the sciences on many accounts, and our colleagues, Hallé and Percy; these gentlemen caused to be repeated before them, first, the series of experiments relative to the principle of the inspiratory movements; secondly, the experiments relative to the principle of the powers of the heart. But these subjects cannot be analyzed in the present discourse.

Le Gallois has also left a work on the teeth of the rabbit and the guinea-pig, on the duration of gestation in the latter animal, and on the relaxation of the symphysis pubis at the moment of parturition. The observations and experiments on these various subjects were made while Le Gallois was enquiring into the principle of life.

The result of all his enquiries and experiments relative to circulation are also printed in the excellent article Heart, (*Cœur*,) which Le Gallois supplied for the New Dictionary of the Medical Sciences, which reckons among its authors several professors of this

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manifestly borrowed from authors who lived during, or shortly before, that war; thirdly, because authors, whose testimony is irrefragable, and who wrote as well during as after the war in question, say expressly that he lived at that era, quoting on this head circumstances which signify the same thing; fourthly, because the dialect which he used refers to the same era; fifthly, because the objection deduced from astronomical observations which are given as a peremptory proof of his great antiquity, is a mere futility which would not deserve to be seriously refuted, if several persons had not ascribed to it a false importance.

faculty,

faculty, and almost all the most distinguished physicians and surgeons of this capital.

Le Gallois, who was qualified by his education and talents to practise either surgery or medicine, adhered to the latter branch of the healing art. He had been nearly a twelvemonth physician to the Bicetre. He lived in Paris, and it was when proceeding on foot to his duty, as he frequently did, that he was attacked by a peripneumonia, to which he fell a victim in the beginning of February last year, leaving an interesting family inconsolable for his loss.

We have to express our regret, that we cannot detain you a few minutes longer by detailing at full length the life of Villars, dean of the faculty of medicine of Strasburg, and associate of our society of medicine, who died on the 27th of June last.

The details of his life would exhibit to your view a man deprived almost from birth of all hope of acquiring the slightest knowledge of letters. You would see afterwards by what difficult bye-paths, and how, with talents almost entirely flowing from nature, he attained an honourable place among the physicians, and particularly the most distinguished botanists, of the day.

The intimacy of Villars, in his youth, with J. J. Rousseau; his zeal for the instruction of the numerous pupils whose minds he formed; his humane attentions to the sick as physician to a great military hospital, or a practitioner among all classes of society, will present some affecting traits to whoever shall draw up his eloge with all the extent it deserves.

Let us no longer withhold the recompenses which await those, who at the last exhibition of our practical school ought to be preserved as examples for the emulation of their fellow students.

This last exhibition has not been in truth so numerously attended as on other occasions, and the candidates have not given the same proofs of proficiency as in preceding years. He whose name was first called, was a convalescent from a severe disease contracted in the hospital, when he underwent his examination. The other candidates who will receive prizes after him, whatever be the place which they occupy are equally worthy of encouragement and indulgence, both on account of their exertions and of the arduous circumstances in which they found themselves at the end of the last and the beginning of the present year.

Let us all now forget the violent and too long continued misery from which we have but just emerged, and listen to the consolations of peace, which can alone soften down our past misfortunes.

But what have we not to expect, gentlemen, from the advancement of medical knowledge, under the reign of a prince who finds so many beautiful examples in every page of the history of the kings his ancestors and predecessors. The establishments which Louis IX. Francis I. Henry IV. Louis XIV. Louis XV. and Louis XVI. consecrated to letters and to humanity, are ever present in the memory and engraved on the heart of Louis XVIII. He has come among us to restore and to preserve. Surrounded by the councils of wisdom, he will preserve for us whatever is good, and will improve whatever can be made better.

NOTE.

Note.—We have given this translation somewhat shortened of the French exposé. Our wish was to show the customs of their Institutes, which, we conceive, may be followed with advantage. At the same time, it is impossible not to perceive the meagreness of information derivable from apparently so many sources. Is it because the French wish to arrogate every thing to themselves that all the information they could derive from English medicine is the translation of a book now almost forgotten, and never held in much estimation among us (Dr. Thomas Reid on Consumptions)? —In our last we noticed the greater clearness of the practical remarks given by our English medical writers above the French. We shall now present the instance to which we referred, and add a physiological fact in confirmation of our other remark.

"Most writers who have employed the term Black Cataract, attach the same signification to it as to Amaurosis; and Sauvages gives them as synonymous terms.

"Morgagni, to whom we refer in all questions of pathological anatomy, never met with an example of black cataract, and considers amaurosis and this to be the same disease. 'Longum de amaurosi sermonem habui sive de cataracta nigra. Nunc paulo breviorem de suffusione.' *De Sed. et Causis*, Epist. xiii. No. 14.

"The German writers confound the two diseases. If we examine the treatises of Maitre Jean, St. Yves, Gendron, and others, on diseases of the eyes, we find that cataracts may be of various colours—white, yellow, blue, green, brown, and black; but, as if they had forgotten the fact, speak of nothing but the white.

"Doubts of the existence of black cataract have been expressed even by surgeons of the first eminence, who refer every thing that has been said respecting it to the amaurosis. Mr. Tartra, a candidate for the chair vacated by the death of Mr. Sabatier, says, that we have not a single authentic example of the disease;* but in a recent instance, at the Hospital la Charité, the crystalline after death was found perfectly black, and was seen by upwards of one hundred persons. An old woman, blind upwards of twenty years, died of serous apoplexy. The last fifteen years of her life, she could not distinguish the greatest light from total darkness. On examination of the eyes, the right was withered, and the cornea opaque through its whole extent. The left eye was in its natural state, the cornea transparent, the pupil round, large, and of its natural appearance. The eye was opened, and the crystalline was perfectly black. It was firm and solid; its superficial laminæ were transparent. When dried, it was divided into two portions: one, the central, black like ink, hard, and solid, constituting three-fourths of its bulk; the other formed a thin transparent envelope to the preceding, of a chesnut colour. The capsule was in its natural state. A diseased state of the membranes, as in amaurosis,

"* Concours pour la chaire de Med. Operat de l'Operation de la Cataracte. Thes. de M. Tartra, p. 28. Paris."

existed,

existed, which sufficiently accounts for the impossibility of distinguishing light from darkness.

"This is not a solitary instance. Many persons who were supposed to be affected with amaurosis, and were condemned to perpetual blindness, recovered their sight by the skill of operators who recognized the real disease.* Mr. Wenzel's Treatise contains the following case.

"'My father having been sent for to Vienna, in the year 1760, to give advice to the Empress-Queen, who had a considerable relaxation of the eye-lid (of which she was soon cured), operated, during his stay in that city, on the General-Marichal Molck, the pupils of whose eyes had no motion, and the crystallines were so black, that both the celebrated Van Swieten and De Haen imagined his disorder to have been a gutta serena. As, however, it appeared to my father, after the necessary questions, and a due examination of the eye, that the operation was likely to succeed, the General determined to submit to it. The cornea, and the anterior capsule of the eye, first operated upon, were scarcely divided, when the crystalline escaped through the incision with great velocity, fell at some distance from the patient, and broke into two parts. Upon examination, it was found to be almost black, firm, and of the consistence of plaster. The crystalline of the second eye came out entire; my father taking care gradually to drop the upper lid, in proportion as the incision of the cornea advanced, in order to prevent its sudden explosion. This was as black as the first, much more solid, and almost stony. The General had no bad symptoms after the operation, and in the usual course of time recovered his sight.'

"* M. Pelier relates a case of this kind. 'An old man, named Jean Brunet, was blind for the space of fifteen years. The eyes were examined with attention, and the smallest alteration in appearance could not be discovered. The pupils were handsome and black, and the iris contracted as in health. His sight had gradually failed, without any pain, but occasionally he saw floating objects before his eyes. As the disease proceeded, the flame of candles at a distance seemed like as many shining revolving suns... From this history, I concluded the blindness depended on opacity of the crystalline, and my conjectures were increased, as he could distinguish light from darkness. I extracted the lens from each eye, and the sight was immediately restored. The crystallines, when extracted, were found very thick, and black as ink, which induced all the preceding oculists to say his disease was amaurosis, and consequently incurable.'—*Pelier, Recueil de Memoires & Obs. sur les Maladies de l'Œil*, page 227. 1783.

"It is important to remark here the circumstances on which Pelier founded his opinion:—1st. The patient perceived objects floating before his eyes, as flies, cobwebs, &c. a phenomenon almost constant in the commencement of cataract, but rare in amaurosis. 2d. He distinguishes night from day."

"Under the article Cataracte, of the Encyclopedie Methodique, and of the Dictionaire Opthalmologique, both written by the same author, we find the following paragraph:

"'Cataracte noire. Etat particulier du chrystallin, qui en perdant sa transparence, acquiert une *couleur brune* tirant beaucoup sur le noir; cette espece de cataracte n'est pas aussi aisée a decouvrir que celle que l'on traite pour l'ordinaire, cependant la *couleur de la chrystalline est differente de la couleur noire* que l'ouverture de la papille offre naturellement.'

"'In the two cases related by this author, the iris had lost its contractile power.

"If the recorded cases of black cataract are rare, it is, probably, because it has been confounded with amaurosis. No difficulty can exist in distinguishing these two diseases, where it is complete, as the latter is then accompanied with *total blindness and inability to distinguish night from day*, which is different in cataract.

"The state of the iris affords no criterion, as, in the case of Wenzel's cataract, it was motionless, while instances of amaurosis exist with perfect contractility of that muscle. The suddenness of the formation of amaurosis can be no criterion, for cataract has been produced in a few hours.* But it is deserving of remark, that patients with cataract see better in a dim than in a strong light, from the corresponding enlargement of the pupil, while the reverse obtains in amaurosis."—*Journale de Medicine.*

The diagnostic marks contained in the last paragraph relate equally to other cataracts as to the black, and are noticed by Mr. Stevenson among the characters of the disease in its various forms. But the accuracy and minuteness of our English oculist in other more important distinctions, will be acknowledged by every impartial reader.

"There is one species, fortunately very rare, denominated by Baron de Wenzel *black* cataract, accurately to distinguish which from some other disorders of the eye, requires a more than ordinary share of experience. Mr. Pott refers to it, when he says, 'sometimes the whole crystalline is dissolved into a fluid, still preserving its transparency; which kind of alteration forms what is by some called one species of gutta serena, by others *black* cataract.'† Nothing less than the high character of Mr. Pott, and his extensive opportunities of observation, would have satisfied me that he had actually met with such a solution of the lens. It is certainly, however, not constant in the *black* cataract; in which case, the crystalline generally possesses a considerable degree of firmness. Baron de Wenzel goes so far as to assert, that in a case of this sort he extracted 'the lens, which was found almost black, firm, and of the consistence of plaster; that before the operation, the pupils had *no motion*, and the crystallines appeared so

"* Tenon, Memoire sur la Cataracte.

"† Pott's Remarks on Cataract, note, p. 7."

black, that both the celebrated Van Swieten* and De Haen imagined his disorder to be gutta serena.'† He says, 'that it is not easy to distinguish a black cataract from a gutta serena;' but that 'though the difference in the appearance of the eye in those two disorders be small, it may be distinguished by a careful observer, since the diseased crystalline has always a peculiar appearance, unlike to that of the bottom of the eye.'‡ Mr. Ware, in a note to the Translation of the Baron's Treatise, p. 52, observes, 'though it cannot be denied that a cataract sometimes exists in an eye whose colour is dark, yet this darkness is very different from the clear black appearance which the pupil has, not only when the eye is in a state of health, but also when it is affected with a true simple gutta serena.'

"As this is unquestionably a point of the greatest importance, I shall subjoin a few other particulars, by which I think its character may be better understood.

"The condition of the eye, which seems to have given rise to the appellation *black* cataract, is as follows. There are changes in the crystalline by which the transmission of light is so little obstructed, that the pigmentum may be discerned through it; yet, the rays emanating from external objects, and striking upon the cornea, are so irregularly refracted in their passage through the altered structure of the lens, as to represent a very indistinct picture upon the retina. The disease is characterized by a dark bluish or slate colour in the centre of the lens, somewhat resembling wrought unpolished iron, the circumference retaining more transparency. In these instances, there is still a degree of *oblique* vision, except when the patient is exposed to a strong glare of light; in which state, from the contraction of the iris, the rays can only pass through the thickest portion of the crystalline. This description of cataract can only be recognised by the above symptoms, by the slightly turbid appearance in the centre of the eye, and the generally inactive state of the iris, but most of all, by the images of external objects not being reflected, as in the sound organ, whilst to the inexperienced the structure may seem perfect, from the pupil still retaining a dark complexion. This kind of cataract is too often confounded with impaired sensibility of the optic nerve, or retina, constituting gutta serena; and the miserable sufferer is consigned to darkness for life, under an erroneous idea that the operation could be of no avail. But this is so far from the truth, that I do not hesitate to recommend the operation in all cases of the above description, where the features of the person

"* See Morgagni de Causis et Sedibus Morborum, epist. xiii. p. 207, vol. i. where we find the term *black* cataract applied, as it commonly was by the Germans, to a palsy of the optic nerve.

"† Translation of Baron de Wenzel's Treatise on the Cataract, case iii. p. 51 and 52.

"‡ Ibid, case vi. p. 58."

who

who examines the eye are not reflected. Let the following case serve as an illustration.

"A lady, upwards of fifty, applied for my assistance, on account of a great defect in her sight. She had, for ten years, consulted oculists of considerable and deserved celebrity, who, fully impressed with the belief that the symptoms depended upon some paralysis of the optic nerve, contented themselves with prescribing such medicines as they conceived were best adapted to increase its sensibility. On a careful examination of the eyes, I found reason to suspect that the case was an instance of what has been called black cataract, and encouraged the hope of restoration to sight by an operation. As this was the first time she had heard her complaint called cataract, she complied with my proposal as a forlorn hope. She was, however, most agreeably disappointed, the operation proving completely effectual; and she is now capable of reading, by the help of proper glasses, the smallest print with the greatest ease and comfort.

"The success of the above case has given me courage to pursue the same plan in a few other instances of a similar nature, and with the same happy result."—*Stevenson on Cataract*, 2d edit. p. 37.

Want of room obliges us to defer our remarks on some cruel experiments made in Paris on living animals, which might have been spared by an attention to our English physiologists.

CRITICAL ANALYSIS
OF RECENT PUBLICATIONS
IN THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, &c.

Cases of Tetanus and Rabies Contagiosa, or Canine Hydrophobia, with Remarks chiefly intended to ascertain the Characteristic Symptoms in Man and certain Brutes, and to point out the most effectual Means of Prevention. By CALEB HILLIER PARRY, M. D. F. R. S. &c. &c.—8vo. pp. 218. Bath: printed for Underwood, Fleet-street.

NOTHING gives us higher satisfaction than a publication from a veteran in our art, particularly where we have reason to expect sound judgment joined to long experience. Both these are united in Dr. Parry, and no one will dispute the importance of the subjects on which he has thought proper to inform the public.

The first paper on tetanus is introduced by four cases from wounds; three proved fatal, two of which were examined after death, and, as is usual, nothing was discovered which could account for the symptoms or their fatality. Some very judicious remarks follow, but, as they are not

quite satisfactory to us, we shall not scruple to offer our objections, which, if not agreeable to Dr. Parry, may afford him an opportunity of giving further information to our readers and to ourselves.

"In reality, the system on which the cause of tetanus, whatever it may be, is found to act, is evidently the muscular; not only of voluntary motion, or what Bichât terms animal life, but also of automatic or involuntary motion, called by Bichât organic life. We see the first in the facial, cervical, dorsal, abdominal, and other voluntary muscles; and the latter in the heart, the actions of which are preternaturally quick; so that, in this malady, one may fairly estimate the danger of the disease, on one hand, or the probability of the recovery, on the other, by the quickness or slowness of the pulse.

"If, however, we look for this increased action of the heart in the origin of the cardiac nerves, which, according to Le Gallois and others, is in the medulla oblongata, about the roots of the par vagum, we shall there find no change from what appears to be the natural state.

"It seems, therefore, as if the cause of this malady operated in some unknown manner on the *vis insita* of the muscles; whether we judge that power to depend on mere organization, or to be a substance, like what has been supposed to be the principle of life in other parts, acting upon a structure fitted to receive its influence; from the loss of which in the heart, that organ, finally exhausted, sinks, and the patient dies.

"But whatever may be the mode in which it is acted on, the heart, in reality, seems to be that part of the frame, which, in tetanus, first loses its vital powers.

"On an observation of this fact, we may, as I have before hinted, form a just, or at least a highly probable, conclusion as to the event of the disease. If, in an adult, the pulse by the fourth or fifth day does not reach 100 or perhaps 110 beats in a minute, I believe the patient almost always recovers. If, on the other hand, the pulse on the first day is 120 or more in a minute, few instances will, I apprehend, be found, in which he will not die. In my patient Collins, the pulse on the fifth day reached 120; but I have little doubt that the increase of quickness arose from the increase of salivation, all the other symptoms of the disease being then on the decline."

These remarks are followed by some very fair conjectures, that the successful cases met with in different collections have all been such as might have recovered under any treatment. On speaking afterwards of remedies, we are told—

"Were an instance now to occur to me, I should be disposed to try the effects of large doses, frequently repeated, of calomel and jalap, as a purgative; so as to procure very copious evacuations during several days. It was chiefly with this view that the calomel was administered in the case of Collins; and a similar practice

practice seems to have been the most successful in the case of Mr. Dickinson. If, however, the pulse were at the beginning of the malady 120 or more in a minute, I would add to these remedies friction with mercurial ointment, to the amount of one or two ounces in the twenty-four hours, successively or conjointly employed, on the legs, thighs, abdomen, and arms. This latter remedy, united with drastic purgatives, might be tried, where, from the violence or situation of the disease, the patient was unable to swallow."

The author does not seem aware, that the ingenious prognosis stated by him bears very much on another too much neglected. Celsus, speaking of these complaints, says, "Ea sæpe intra quartum diem tollunt. Si hunc evaserint, *sine periculo* sunt.—*Lib.* 4, *cap.* 3. We shall not enquire what is meant by the unknown manner in which the cause of this malady operates on the *vis insita* of the muscles, nor even what is meant by the *vis insita*. That the fatality of the disease depends on the muscles of the heart partaking of the contraction is, satisfactorily we think, proved in an ingenious paper by Mr. Howship, in our 22d vol. p. 188. This, and our preceding volume, afford many very valuable cases by that able surgeon; and we regret they are unnoticed by our author. Nor can we see why Dr. Parry should omit the free use of opium in any future case, for, whether the patient who survived was cured by that remedy or not, he certainly recovered under its use. Three cases follow of tetanus in horses, which afford no particular practical instructions.

The section on Hydrophobia also commences with cases; on these, we shall be as short as possible,—the melancholy list being already very long. We shall principally attend to the dissections. In the first,

"Every part of the brain, medulla oblongata, larynx, trachea, lungs, heart, pericardium, pharynx, œsophagus, stomach, intestines, liver, gall bladder, pancreas, spleen, kidnies, and bladder, together with the meninges of the brain, and the pleura and peritonæum, was most carefully examined, both within and without; but in no part was there the least preternatural effusion, discolouration, or any deviation whatever from the healthy state.

"There having been no inflammation or pain in the wounded parts subsequently to cicatrization, they were not opened."

The following is the account of the second:

"There was no appearance of disease in the fauces, or in the upper part of the pharynx or trachea. At the commencement of the œsophagus, for about two inches downwards, there was, in its substance, a greater degree of lividness, than through the rest of its tract; and the cellular membrane behind that portion had in it a small quantity of blood, which might possibly have been extravasated

travasated before death; though not probably, as a small branch of the carotid near the part was cut through in the dissection, and did actually bleed into the adjoining cellular membrane.

"The cardiac portion of the stomach had its villous coat, and that only, of a more florid red colour than what is supposed to be usual, as if from preternatural fulness of the minute arteries; and the large venous trunks were unusually distended with blood. The redness did not extend up into the œsophagus, nor did it affect any other part of the stomach, except a small portion immediately about the pylorus. The stomach was rather larger than common, and in a lax state; and had in it about three-quarters of a pint of fluid, similar to what it usually contains. There was no appearance of disease in any other of the abdominal viscera.

"The lungs, and all the rest of the thoracic viscera, were in the natural state, except that the internal membrane of the trachea, for some inches upwards from its bifurcation, was redder than common, as if its minute arteries were injected with blood. It was not covered with any preternatural secretion.

"The medulla oblongata, and all the parts within the cranium, were of the usual appearance. The blood was every where fluid."

In the third case,

"The cellular membrane of the abdomen was so distended with air, that the epidermis seemed, when pressed on, to be in some places distant two inches or more from the muscular substance within.

"The head was unusually large. The dura mater adhered firmly to the cranium. The pia mater, and general substance of the brain, were every where somewhat more vascular and watery than is commonly observable in adults; but we doubted whether in a greater degree than is common to the age of this patient. Every part of the brain and medulla oblongata, together with the great arterial circle, was carefully examined, and was found free from disease. The ventricles were void of lymph, and the pineal gland of any thing gritty. The only observable deviation from health was in the fourth ventricle, on the anterior paries of which, at the upper part, there was a dark spotted patch as from ecchymosis, or black extravasated blood. As the ventricle was opened longitudinally from behind, this discoloured part seemed to include a space nearly as large as a silver fourpence.

"In the thorax, there was emphysema under different parts of the pleura pulmonalis, on both sides. On the right side, there was an extravasation of about two ounces of bloody fluid, but none on the left. Both lungs had in them a good deal of dark blood, but could not be said in any respect to labour under disease, except from the appearance of one small tubercle in the left lobe. The pleura costalis was every where in the usual condition. The heart was extremely hard, and strongly contracted; having in its cavities a very little clotted blood, and no disease in the valves

or

or coronary arteries. The tongue, pharynx, larynx, trachea, and œsophagus as low as the diaphragm, were taken out of the body; but after the closest examination, not the smallest redness could be detected in any part of them. A little thin mucous bedewed the inside of the trachea. The œsophagus was traced to the stomach, and was perfectly pale. In the stomach there was a similar appearance, except that there were two or three faint stripes of pale red about the cardiac portion, which by no means amounted to disease. The stomach contained about a spoonful of a pale pulpy liquid. The liver and all other parts were in a sound state. The bladder was full of urine."

We shall only remark, in the last case, the coincidence in the state of the heart with Mr. Howship's observation in the dissection of a tetanic case.

A case follows of imaginary hydrophobia; after which the author draws his inferences on the former three.

"All those who carefully peruse these cases, must be struck with their close coincidence as to certain symptoms; which may, therefore, be considered as the characteristics of the disease.

"In the first place, the part which is primarily affected, so as to give occasion to the symptom called hydrophobia, is not the pharynx, œsophagus, or stomach, but the upper portion of the trachea, together with other parts of the apparatus concerned in the function of respiration. The truth of this position is evident from the following circumstances:

"*First.* At certain periods of the disease, when it was marked with sufficient strength, two out of three of these patients swallowed solids without difficulty, or any tendency to the production of the convulsion.

"Secondly. The local convulsions were brought on, not only by swallowing, but by a quick impulse of air, such as is actually known to put out of breath, in a slighter degree, young persons, whose respiratory organs may readily be supposed to be in an irritable state.

"Thirdly. The spontaneous attacks of the convulsions, whether during sleep or waking, always began with a violent sobbing inspiration, in which the shoulders were generally preternaturally elevated, as in asthma, and the abdomen strongly protruded by the forcible depression of the diaphragm.

"*Fourthly.* This state was still more strongly marked, when the convulsion was brought on by the attempt to swallow liquids, by the mere contact of them with the fauces, before any attempt to swallow them, by the apprehension of them, or by the strong impulse of air: in either of which cases the power of respiration seemed suspended, or very irregularly performed, and the patient experienced a sense of strangulation, which shewed itself by an apparent constriction of the rima glottidis, and in the corresponding gestures of the patient."

"Another circumstance, characteristic, as it should seem to me,

me, of this disease, is an inordinate action of the voluntary muscles; whether from a perverted function of the brain, or a want of power in the muscles themselves precisely to obey the will, it may be hard to determine. The muscles seem always to over-act the intention of the mind."

"A third characteristic circumstance is the peculiar nature of the delirium; different, certainly, from that which occurs in any other malady, with which I am conversant. The patient shall go on talking with vehemence, and for many successive hours, of past events, as if they were actually present; shall fancy objects to be different from what they really are, and shall even act on those delusions; and yet no sooner is his attention excited by questions put to him by his friends, than he shall answer them, and continue for a considerable time to converse, with a calmness of manner, and a coherency of ideas, precisely similar to those of a person in perfect health. This more or less occurred with regard to all three patients nearly to the last; and it is stated, in the case of Master English, that fourteen hours before his death, in the intervals of his convulsions, he was amusing himself with his play-things."

Some remarks follow to shew the diagnostic distinctions between the above disease and epilepsy, as well as tetanus, after which an inquiry follows concerning the origin of the poison, which is, of course, left in doubt; the author's opinion, however, is, that it is not excited *de novo*, but always by the application of saliva from a rabid animal. He seems to doubt whether the infection has been traced beyond dogs, wolves, foxes, and cats. The following is a summary of the remarks concerning the medium time from the bite to the appearance of the disease.

"I have already remarked that the poison sometimes lies long in the part without any apparent action on the constitution. If Tucker really owed his disease to the supposed bite in the mouth of November, 1809, seven months must have elapsed before the disease shewed itself. Galen asserts that he saw a case after a year; Avicenna speaks of six months as a possible interval; and Dr. Mead remembered one example after eleven months. The case of Stephen Bellass, by Mr. Nourse, which is a probable example of the disease, exhibits an interval of the extraordinary length of nineteen months.* Master English was taken ill fifty-two days, and Selway twenty-three days, after the bite. This last is the shortest interval which I have been able to find in any well-defined example of the disease; and exactly accords with that in the case of John Dyke, by Dr. Beddoes.† The period commonly assumed is about forty days; and a mastiff of mine, which died rabid, became ill forty days after he was seen to have been bitten

"* Philosophical Transactions, No. 445.

"† London Medical and Physical Journal, vol. xx. p. 195."

by a small terrier, which, within a quarter of an hour after, bit another dog, who also died with similar symptoms, within twenty-four hours before or after the death of my mastiff. The shortest interval, according to Mead, is fifteen or sixteen days."

The uncertainty of the duration of the disease is next judiciously dwelt upon; after which follows an important observation, too little noticed by most writers, namely, the speedy decomposition of the parts after death, and the fluidity of the blood; in other words, we should say, the rapidity with which *absolute universal death* follows the cessation of respiration. This should always be kept in view as the means of accounting for that apparent inflammation of the stomach, remarked by so many persons unaccustomed to the examination of dead bodies, but which, in reality, is only a partial solution of the villous coat of the stomach, in consequence of its becoming dead before the gastric juice contained in the secretory part is urged into the cavity. This was particularly exemplified in one of Dr. Parry's cases (Selway); though opened only eight hours after death, decomposition was advancing; and here it is remarked, there were found two or three faint stripes of pale red about the cardiac portion, which, it is afterwards observed, often occur in persons who die without any previous symptoms of inflammation in the stomach. "There cannot," proceeds our author, "be a greater mistake than to suppose, that the fever is of the inflammatory kind, &c." At present we shall only remark, that, in the case he produces to illustrate his opinion, the blood in the progress of the disease shewed an inflammatory crust, and the urine was high coloured: the latter is ascribed by Dr. Parry to the small quantity of fluid swallowed by the patient. It could not be supposed, after this bold assertion, that Dr. Parry would overlook those histories of cure by bleeding, transmitted to us from the East Indies.*

That there are difficulties attending the complete identification of the cases with rabies is certain; but we are by no means satisfied with the subsequent reasoning of our author. "It is, however, certain," says he, "that the being bitten by a healthy dog will not prevent convulsions, phrenitis, nor any of the diseases confounded with the rabies;—nay, a man may have these diseases after being bitten by a rabid dog, and not have hydrophobia."—Did any one doubt, that a man may have convulsions and phrenitis under any circumstances? But we have read well-authenti-

* See London Medical and Physical Journal, vol. xxviii. p. 381; and Ibid, vol. xxix. p. 34 & seq.

cated cases in which no symptoms of rabies have appeared in the dog, yet the bite has produced rabies, and this too in subjects who have had no suspicion of the cause of their disease. As Dr. Parry has searched a great number of records, we cannot help wondering that he should have passed over those two important ones related by Mr. Parkinson in a Journal which he has not entirely overlooked for other authorities.*

"The pulse (says Mr. P.) was frequent; the heat but little more than natural; the mouth was dry, and the tonsils slightly inflamed. She complained exceedingly of thirst, but said it was impossible to drink; for that, as I had seen, directly as the liquid touched her lips, it threw her into convulsions: I therefore promised that I would give her some drink without letting it touch her lips. This I attempted by dropping water on her tongue from a tea-spoon, she opening her lips and mouth as wide as she was able, and leaning her head back on the pillow. This succeeded for a little time, she swallowing the water, and expressing much gratification; but a drop falling aside on her lips, she became exceedingly agitated, and was with difficulty persuaded to allow me to make another attempt in a mode in which I told her I could better secure the water from dripping aside. This, however, she at length submitted to, and by dripping the water from the end of my finger on her tongue, she swallowed nearly half a glass full of water with much pleasure, and without any apparent inconvenience. I then placed some calves'-feet jelly on her tongue, in its more solid form; which, as it melted, she swallowed pleasantly, and of this she took freely.

"An opportunity offering, I enquired what had become of the little dog I had been accustomed to see at the house. She informed me, "that it had become so troublesome that it had been sent away.—"Had it," I asked, "become cross and snappish?"—"No," she said, "never—it was rather too fond, for it was perpetually leaping on her lap, and licking her hands and arms," which I observed were still rough from chaps. "Then," I said, "he never bit any of the family?"—"Never."—"Pray," I then asked, "were you ever bitten by any dog?"—"Never," she eagerly answered, adding, "Why do you ask?"

"When Sir W. Blizard came, he procured her immediate removal to the London Hospital, where, to the best of my recollection, a consultation of all the medical and surgical officers was obtained, but in vain. She died, I think, within forty-eight hours from her removal. The inspection of the body, which was performed with a particular degree of minuteness and care, presented only the usual unsatisfactory appearances."

The other case is, in our opinion, not less satisfactory.

"The wounds, (we are told,) were dressed with red precipitate and a terebinthinate ointment, and healed in about five days.

* Repository, vol. i, page 289.

But,

But, at nearly three weeks from the infliction of the bite, I was sent for to the boy, he having had some slight feverishness the night before, which was rather increased. My son accompanied me, and we soon discovered that the dreadful malady was established. Ignorant of any measures that could be relied on, and as pyrexia, with evident inflammation of the tonsils, existed, we agreed on the experiment of taking away blood, which was done to the quantity of 6 or 7 ounces, by which a slight degree of faintness was produced, without any apparent amendment.

"The benevolent assistance of Dr. Yellowly was now requested, and immediately obtained, when, it being considered that no medicine had manifested any remedial powers in this disease, it was agreed to make trial of the effects of lead, and to endeavour to moderate the more urgent spasms by the employment of henbane. The experiment was fully made, the superacetate of lead and the extract of hyoscianus were had recourse to, but without the least advantage; the child, after suffering from every decided symptom of hydrophobia, being seized with convulsions so violent as to require two men to retain him in the bed; to which succeeded a state of quiet insensibility, lasting about half an hour, and terminating in his death, which took place on the third day from the attack.

"On the following day a most accurate inspection of the body was made with the assistance of Dr. Yellowly, Mr. G. Young, and Dr. Berger, but without discovering a single circumstance which could point out the seat, or the nature of the disease."

We are aware that Mr. Parkinson relates these cases from memory; but we have too good an opinion of his accuracy to conceive that he made up his mind too hastily, or that in so interesting a history his memory should have betrayed him in any material point. We quote the following passage that our readers may form their judgment, whether they are to accuse Dr. Parry of unreasonable scepticism, or applaud his accuracy, as the cases are all taken from our Journal:

"The case of Anne Chandler, by Dr. Powell,* appears to me to be evidently œsophagitis, and not rabies; and that of William Waters, by Dr. Pinckard,† laryngitis mixed with œsophagitis: that of William Miles, by Mr. Hicks,‡ mania from fear; and that of Elizabeth Kirk, by Mr. Borrett,§ gastritis with ulceration.

"Respecting this last case I must observe, that various disorders in the stomach, and more especially that state, in which large quantities of blood are ejected by vomiting, are, in females, often accompanied with singultus, aversion to swallowing, great inconvenience from it, and frequent paroxysms of hysteria.

* London Medical and Physical Journal, vol. xx. p. 201.
† Ibid. vol. xxi. p. 58. ‡ Ibid. vol. xvii. p. 272.
§ Ibid. vol. xxi. p. 268.

"I may also advert to two other cases, by Dr. O'Donnel, supposed, I think erroneously, to be rabies. The first, that of William Honey, was a clear example of acute inflammation of the larynx and pharynx, attended with a similar state of the brain, and consequent extravasation in the ventricles. The second, that of Joseph Watson, was also one of sore throat. No dissection of this patient is, however, given in the London Medical and Physical Journal, (vol. xxix. p. 485, et seq.) from which I quote.

"In all these instances, there was dread of water, from the inconveniences attendant on swallowing it. But though the patients were bitten by dogs, there was no evidence of canine rabies; in which, as I have before observed, the spasm of the respiratory organs accompanies the contact of liquids with the inside of the fauces, before any attempt whatever is made to swallow them."

The inference from the whole is, that rabies is not an inflammatory disease, and that it is incurable; hence, Dr. Parry very properly directs us to the preventive means. Here he advises large ablutions and free excision at any period after the bite, and even at the commencement of the symptoms. His illustrations are not, however, quite satisfactory. We do not know, that the experiment of excision has ever been tried in the small-pox. The experiments of Fontana on the poison of the viper are not at all to the purpose. The poison of the viper is not a morbid poison.

"The poison, (we are told,) for ought we know, may be increased by a process equivalent to fermentation; and the part may be the reservoir, from which the constitution is successively imbibing, even until death, the *materies morbi*. We are equally ignorant of the quantity which may be necessary in order to produce death. It was found by Fontana, that the effects of the poison of the viper depended on this circumstance; so that the bite of one viper would kill a small animal, such as a fowl or a rabbit, but was insufficient to destroy a man, or even a middle-sized dog. A larger quantity killed a dog; and a still larger would, probably, have produced the same effect on a man. Perhaps, therefore, the excision of the part, even after the pains in the course of the nerves have begun, may so cut off the supply of virus, as to make that, which has been already received, inadequate to the destruction of life. I offer this merely as an hypothesis; on which, however, I would certainly act, should an opportunity, in which the operation was admissible, hereafter present itself."

Now, in morbid poisons, it should be recollected the quantity applied, if sufficient to produce any morbid effect, is of no consequence as to the future disease. The poison of the viper does not enable a poisoned animal to injure another like a morbid poison. We say nothing about fermentation, an expression we should not have expected from Dr. Parry, when speaking of the living body. Whatever may

may be the cause of increased *materies morbi*, nothing of the kind exists in the poison of a viper.

Dr. Parry next proceeds to mark the symptoms of rabies contagiosa in brutes. Here he seems at issue with every one who has gone before him; we shall, therefore, only in general remark, that we are by no means convinced that, though "all animals of the same class are regulated by the same physiological laws; or, in other words, that the phenomena constituting the same functions are, in all, similar both in quality and order, differing only in their degree, conformably to the known structure of the animal, and the ends of his existence;" that, therefore, "the pathology, or phenomena of deviation from the healthy performance of the different functions, must also be regulated agreeably to the same invariable principles."

"To suppose, (says Dr. P.) that the characteristic marks of disease in brute animals are either continually varying among themselves, or essentially different from those in man, is to deny that uniformity of the laws of nature, and to assume a new set of principles, according either to our own blindness or the workings of our own distempered imaginations."

It is certain, however, that cow-pox in cows differs from the effects of the same poison in the human race, and, if Dr. Jenner is right in ascribing the origin of that poison to the grease, that it differs still more in the horse. We regret with Dr. Parry that our information is so unsatisfactory in these points; but we regret still more that we cannot follow him without, in our opinion, admitting a degree of scepticism which would confound all evidence or supersede any thing like reasoning on well-established facts. We shall leave the question concerning Mr. Gillman's pigs to that gentleman. But the history related by Mr. Surr, of the effect produced on five horses, being within the reach of our readers,* and involving the accuracy of one of our valued correspondents, seems to claim our particular attention. The following is Dr. Parry's short account of these transactions.

"In the London Medical and Physical Journal, vol. xxiii. p. 1, cases are given, by Mr. Surr, of five horses, which died nearly about the same period, after having been bitten about the nose and lips by a dog, which was, in all the cases, probably the same. Except this disposition to bite, there is no evidence that the dog was mad. Of the symptoms in one or two of these horses, a full account is given by the writer. Two of them are said to have drank freely; and neither of them experienced the smallest incon-

* London Medical and Physical Journal, vol. xxiii. p. 1.

venience

venience from any application of fluids, or had any convulsions, or any other symptom whatever of rabies, such as it is seen in the human race. The only two which were examined by dissection were found to have been affected with violent inflammation of the mucous membrane of the parts leading to the lungs and stomach; which might very well have produced the symptoms, but are not usual concomitants of rabies. This inflammation was probably produced by continuity of membrane from the bitten parts; a common occurrence in erysipelatous inflammation."

Such is Dr. Parry's summary history of five horses, all bitten about the same time, and each seized with symptoms in many respects similar, about the medium of three weeks. To save our readers the trouble of comparing this with the first article in our 23d volume, we shall mark the sentences as they occur:—"There was no evidence of madness in the dog, but his disposition to bite." In most cases this is all the evidence that can be produced, and in many even this is wanted.—"Of the symptoms of one or two of these horses a full account is given by the writer." Enough is collected concerning the symptoms of each to shew a coincidence in time, and in the issue of each.—"Two of them are said to have drank freely." Have we any proof that dogs do not drink freely when their bite is venomous? but it is more to the purpose to mark, that the two who were watched with the greatest care were unable to swallow.

"The only two (continues Dr. Parry) which were examined, were found to be affected with violent inflammation in the mucous membrane of the parts leading to the stomach and lungs.—This inflammation was probably produced by continuity of membrane from the bitten part."

It is painful for us to be under the necessity of asking our readers, whether such a cause is equal to such an effect? The horse, of which we have the first history, had the bitten part cut out; the incision healed readily by the first intention, and comparatively without even a cicatrizing hardness. Being a favourite animal, and the event well known to his master, he was watched with peculiar notice. For a fortnight he continued without any sensible alteration, and even for twenty-one days without remitting his work. On the following day he was incapable of drinking, and perpetually rubbed his nose. Now, if this irritation at his nose was the effect of the previous bite, it was in perfect conformity with the laws of this morbid poison, the progress of which is to induce its diseased action at a medium of twenty-one days from the insertion. If it was not the effect of the bite, we may be at least allowed to express our surprise at the uniformity of time and other symptoms in five horses, all of

which Dr. Parry is willing to admit were bitten on the same day by the same dog.

In the second horse to which Dr. P. refers, the bitten part healed "without any callus." He was taken ill about the 24th day, and from that time rubbed his lip incessantly, and was unable to swallow water.

Besides the above remark, we cannot help recording an uniformity in another symptom which we are surprised Dr. Parry should not have thought worth his notice. We mean the state of the urethra, remarked by Mr. Surr in two cases, of which he gives an accurate account, during the acute symptoms and after death. The same symptom was remarked by Dr. Fothergill in Mr. Bellamy's case, which Dr. Parry has considered in his enumeration, as one of the most clear, and to which he has consequently prefixed his asterisk.

It is not without considerable unwillingness, that we have thought it our duty to remind Dr. Parry of what appears to us too great a scepticism in historical records. We felt particularly interested in this respect, on account of the number of well-authenticated cases with which our volumes abound. We have, however, confined ourselves to a single paper, as sufficient to explain our meaning. To have omitted any defence of those correspondents, who, from the best intentions, have favoured us with their communications, would ill become that gratitude which, in common with our readers, we ought to feel for the trouble they have taken, and still more for the obloquy to which they expose themselves. Nor can we help observing the danger to which all philosophical evidence is exposed, if cases so minutely related, so accurately traced, and authenticated by such respectable names as eye-witnesses, are to be disposed of with so little reserve in a publication in other respects so highly deserving attention.

We still trust, that such a publication, from such an author, will find its way to the library of every collector; for though little that is new in practice can be proposed, yet the work abounds with ingenious remarks and many important truths.

A Special Report of the General Committee of the London Infirmary for Curing Diseases of the Eye; in which certain Pretensions of Sir William Adams, advanced in the Official Papers published by Order of the Hon. Directors of Greenwich Hospital, lately submitted to a Medical Committee, appointed by Government, and affecting the Rights of the Infirmary, and the Merits of the late John Cunningham Saunders, Esq. its Founder and Surgeon; are Examined and

and Disproved by the Correspondence of Mr. Saunders, and other Documents. London: Published, by Order of the General Committee, by Longman and Co. 1815. pp. 45.

Such is the length of title to a pamphlet of less than 50 wide pages, and we heartily wish we had never seen either title or book. To render it as little irksome as possible, as well as to preserve our impartiality, we shall notice the different pieces in the order in which they occur.

The first is inscribed "At a Meeting of the General Committee of this Charity"—present, among others, the three medical officers—

"A Resolution of a Sub-Committee, dated the 21st of December, 1814, appointing the medical officers of this Infirmary a Committee to examine and to report to this General Committee, the evidence which supports the rights of this Infirmary, and the merits of the late John Cunningham Saunders, Esq. its founder and surgeon, in respect to the treatment of the Egyptian Ophthalmia, against certain claims of Sir William Adams, brought forward under the sanction of the Honourable Directors of Greenwich Hospital, and submitted to the examination of the Medical Committee,* appointed by government, having been read and confirmed; the following Report of the Medical Officers, on the matters referred to their examination, was read by the president, and deliberately considered."

Here it is impossible not to remark, that the General Committee of the Eye Infirmary is opposed to the Hon. the Directors of Greenwich Hospital; and the medical officers of the Eye Infirmary to all the first practitioners in London, whose names are thrown into a note of the report.

Next comes the Report of the Medical Committee, that is, of the medical officers of the Eye Infirmary. Whatever may be the respectability of these gentlemen, it would have appeared more decorous had they left others to make a report in which the ignorant part of the world will suspect they are interested. Are there no medical characters in the kingdom, excepting the medical officers of the Eye Infirmary, who might be competent judges from proper documents produced on this important question? Sir William too, according to the papers before us, claims the evidence of

"* This Committee was composed of the gentlemen whose names are subjoined:—Sir Henry Halford, Bart. M.D. F.R.S. Physician in Ordinary to the King, and to the Prince Regent; Matthew Baillie, M.D. F.R.S. Physician Extraordinary to the King; Sir Everard Home, Bart. F.R.S. Sergeant-Surgeon to the King; Henry Cline, Esq. F.R.S.; Astley Cooper, Esq. F.R.S.; John Abernethy, Esq. F.R.S."

three

three medical men, the physician, (we presume,) the surgeon, and the apothecary to the Hospital, whose names are affixed. We feel every moment disposed to stop till some little interesting passage induces us to keep on, and now the credit of our Journal must be our apology.

"Amongst the formulæ kept (say these gentlemen) at that Infirmary, none was more constantly used by Mr. Saunders, at the commencement of acute ophthalmia, whether of the external or internal tunics of the eye, than a simple solution of tartar emetic, so administered as either to nauseate, or to produce full vomiting. His correct reasoning on the latter effect of this remedy will be found in his Essay on Inflammation of the Iris, which was first published in the Medical and Physical Journal, in the year 1806."

Thus, then, as the organ blower always feels his importance when the organist performs well, so we feel a little proud that our pages may claim the honour of first announcing this discovery to the world, a discovery concerning which so many oculists are disputing, and so many *reports* are current.

We copy the following to show the little ceremony paid to those names which we have hitherto always mentioned with respect; and also to show that Sir William, whatever may be his real claims, seems, by the confession or allegation of the *special* Committee of the Eye Infirmary, to have given up all title to one important discovery.

"That your Medical Committee might not shew themselves inattentive to the reference of Sir William Adams to any member of the committee appointed by government, to inquire into *his claims* to a *new* and successful mode of treating the ophthalmia in *all* its stages and varieties, one of your medical officers made a personal inquiry of Mr. Abernethy, and received his permission to state, 'that the object of the committee was to observe and report on Sir William Adams's treatment of certain patients in the *chronic or last stage* of the Egyptian ophthalmia.' Thus, then, it appears, that the object of that distinguished committee was not to inquire into a new and successful mode of treating the ophthalmia in *all* its stages, as Sir William Adams asserted; but that it was confined to that *last* stage of it, for which the official papers of Greenwich Hospital unjustly gave him the honour of discovering the cure.

"But further, in examining the words in which Sir William Adams has thought proper officially to lay his claims, we observe, that the committee are appointed by government, according to his assertion, to inquire into a *new* and successful mode of treating the ophthalmia in *all* its stages and varieties. The construction and obvious meaning of this sentence must have led us to suppose, that he persevered in declaring himself the discoverer of the method of restoring sight, by removing a certain state of the conjunctiva

produced by the Egyptian ophthalmia, if the document (No. VI. in the Appendix) had not also accompanied the other statement. By this official paper, which seems to have been presented to Sir David Dundas, the late Commander-in-Chief, immediately after the death of Mr. Saunders, (being dated March 1st, 1810,) Mr. Adams assigns the discovery to Mr. Saunders."

We cannot doubt the truth of the expression imputed to Mr. Abernethy; but, without those kinds of regular documents which are signed by the parties, a report is always imperfect.

In the next page we are told that Sir William only claims the honour of having improved upon Mr. Saunders. "Your *medical officers*," continue the *special committee*, "find nothing in this alleged improvement excepting a *slight variation* in the mode of carrying into effect the principle of treatment pointed out by Mr. Saunders." Is it for medical men to consider any variation, however slight it may seem, as unimportant?

"Your committee," continue these gentlemen, "take this opportunity to remark, that *to Mr. Saunders is exclusively due* the application of the third operation, or that by solution, to the cataracts of persons born blind, even in the earliest stage of infancy; in the opinion of your committee, *one of the most valuable and splendid discoveries of modern surgery.* He first *systematically* applied the same principle to the treatment of cataract in the adult, in its different forms; but the lamented arrest of his career by death, rendered the result of his experience on this subject incomplete. His successor felt it to be no less a grateful tribute of respect to the professional character of Mr. Saunders, than a duty imposed upon him, in the situation to which he was appointed, to prosecute the opportunities, which the death of Mr. Saunders had placed in his hands, of ascertaining the applicability of the operation by solution to the cataract of the adult subject. The results of his experience confirmed those of Mr. Saunders, as stated by the editor of his work, in the Essay on Congenital Cataract, and were communicated to the profession in the 4th volume of the Medico-Chirurgical Transactions. By these, it appeared, that the operation by solution was exclusively applicable to the congenital, and soft or flocculent species of cataract."

Hard words for the gentlemen to whom they are addressed, and a somewhat complicated subject for them to understand; but extremely modest: for, by "*his successor*," it is impossible these gentlemen can mean either of themselves, unless the succession of ophthalmic knowledge can be retained, like that of the ancient prophets, by the transfer of a mantle; or, like the modern successors of St. Peter, by the choice of a conclave. The only medical succession we know of, if any can be admitted, is that of a regular instruction from a predecessor

cessor in the same walk. Now we never heard that nders had any other pupils than Sir William and Mr. on. We conceive, therefore, that the latter gentle- ist be meant; yet, in perusing his valuable treatise aract, we find him tracing the operation alluded to farther back than his master, to whom he seems is to offer every well-deserved homage.

re is an obscurity in the above quotation, which aders will not require us to develope, as they have nole before them. Does this *splendid discovery* con- the application of the operation by solution, as it is l, to infant subjects? This we are ready to attribute r. Saunders. Is it a discovery that this operation, h Mr. Saunders, we believe, first ventured to perform very young subject, was, by his successor, performed adult! or that it "*was* exclusively applicable to the genital and soft or flocculent cataract?" Lastly, does mean that soft or flocculent cataracts in adults are to be ed in one way if congenital, and in another if com- cing after birth?

his paper concludes with some remarks on Sir William's tensions, to enumerate which, or even the pretensions mselves, would, we conceive, only fatigue our readers.

An Appendix follows, containing several letters, which ord so little information, that they might be all very well nitted. Subjoined to this appendix, is a paper called a Statement;" in the course of which we find that it is the ntention of the governors of the Eye Infirmary to enlarge heir plan, by procuring a freehold building for their pur- ose; and "that, their intention, as a public body, being nly that of increasing a public benefit to the full extent of which it admits, an application to government to aid this important design has been for some time contemplated."

Now this at once explains why Sir William, who under- tands puffing as well as other people, must be laid aside. But, if we are to have an establishment supported by govern- ment, should not the officers confine themselves exclusively o that department? What other advantage can such a oundation offer? If the medical officers are to be surgeons f the other royal hospitals, can they not practice and teach ll they know at those hospitals, without the necessity of new nd consequently expensive establishments, and without in- reasing the expense of a medical education? No one can e more ready than ourselves to admit that operations on, and even examinations of, so delicate and complex an organ as the eye, are likely to be more perfect when confined to those who are unembarrassed by other occupations, or whose

manipulations are never directed to larger and less complicated organs. In a word, if the object of this report was only to show the insufficiency of Sir W. A.'s pretension, that might have been done with equal facility and brevity. If to solicit the aid of government, or private benevolence, a more direct mode would have, in our opinion, proved more successful.

Edinburgh Medical and Surgical Journal, No. XLI. for January 1815.

(Continued from p. 228.)

Art. IX.—*A Reply to a Letter on the Treatment of Fever by Blood-letting, addressed by the four Permanent Physicians of the Committee of the Fever Hospital, Cork-street.* By Thomas Mills, M.D. &c.

As far as we can judge at this distance from the scene of action, the same business that we once witnessed with Dr. Jackson and the Army Medical Board, seems to have been transacted again at Cork. The necessity of blood-letting in fevers is now so well established, that Dr. Mills cannot fear of having partisans every where but at home. There, perhaps, he may share the fate of other prophets. We cannot help expressing concern at the perusal of the paper, on account of the too great sensibility with which it is dictated. We sincerely hope that our few remarks may prove some relief to the author's feelings.

Art. X.—*Letter to the Editors of the Edinburgh Medical and Surgical Journal, from the Medical Officers of Greenwich Infirmary, vindicating Sir William Adams from the charge of keeping secret his Improved Operations on the Eye; with some Observations by the Editor.*

Perhaps the vulgar may say "it's all my eye," Sir William Adams is a knight; he has written, and induced others to write, several things to prove that he is the greatest of all possible oculists. Can he suppose that no one will take offence at this? Have not other surgeons, from a sister kingdom, written on the eye? Have we not also in London an institution, the medical officers of which, though engaged in general practice, conceive that all eye practice should be centered in their establishment? We mean not, however, to undervalue the Editor's reply, but perfectly agree with him, that whatever communication was made by Sir William, was not to the public but to the board, which acknowledges its obligation.

Art. XI.—*Case of Compound Fracture of both Legs, successfully Treated.* By John Peake, Member of the Royal College of Surgeons.

Art.

Art. XII.—*Case in which a Mass, resembling a Placenta without a Fœtus, was discharged from the Womb.* By M. Lemon, Member of the Royal College of Surgeons in London.

This paper is of considerable importance; and, if the appearances are not related with that perspicuity which we could wish, we must impute it to the difficulty of the attempt, rather than to any incapacity in the writer. However, as every hint may be useful towards the future examination of such ill-defined substances, we shall follow the example of the Edinburgh editor, first transcribing the case, and then offering all that occurs to us on the question.

"Mrs. Cunningham, æt. 24, has had three children, besides a miscarriage, which happened about two years ago. The extreme rudeness of a licentious fellow having, on Thursday the 11th of August, required her to make violent exertion, she, on the following day, perceived a slight flow of blood from the vagina, which ceased on Saturday evening. On Sunday night, when in bed, it returned with increase, and continued (gradually diminishing) till Wednesday. All this time she suffered no pain, nor was she prevented from managing her domestic affairs—there was a slight tenderness of the abdomen only. After having had two or three pains, in every respect like those experienced during the time of parturition, she, about half-past five in the evening, was seized with a profuse hæmorrhage. The pains and hæmorrhage continuing, my immediate attendance, for the first time, was requested. It was half-past nine when I saw the patient, who told me she had advanced near four months in her pregnancy; and that the discharge was alarming only during the presence of a pain. Examining *per vaginam*, I found the *os uteri* dilated to the extent of a half-crown; and a bag, protruding through it, distended, as I thought from its elastic feel, with the liquor amnii. About eleven o'clock, a fleshy cake, three inches in diameter, possessing every character of a natural placenta, and having a membranous bag connected with it, was expelled. The shape of this mass was oblong. Slitting up the bag,* which was then flaccid, the contents gave an appearance (not with regard to colour, similar to that which is presented on the exposure of the thoracic and abdominal viscera of a very young fœtus. But the expansion of the placenta rendered the nature of this appearance evident. Its whole surface was covered with tumours. There were about twenty-two distinct, besides many inconsiderable ones, of various size, shape, and colour; some in clusters, (with broad bases) all seemingly connected by veins. The largest tumour was equal in magnitude to a small walnut; but this was easily, though not completely, divisible into two. Many were of the size of grapes; some were flat-sided;

"* There was no fluid found when the bag was cut into."

others

others conical, oblong, irregular, and convoluted. Most were livid; some fleshy-brown, and two or three light yellow. There was one, larger than the rest, semi-transparent, membranous, and globular, with its base surrounding the largest of the latter.* This appeared to be formed by the raising of the covering of the fœtal surface of the placenta, which, after affording a tunic to all the tumours, was continued from the circumference of the placenta to form the bag. This membranous continuation had another imperfect fatty layer proceeding from the uterine surface of the placenta. The livid tumours generally had condensed fat at the extremity. All had the same feel, except the yellow, which consisted of a compact fatty substance, resembling that found on the other side of the placenta. The livid and brownish had not the firmness of fleshy tumours, nor the elasticity of those containing fluid. They contained coagulated blood; and, pressing it out, a substance of a placental nature was left betwixt the fingers. Such is my idea of these tumours, that, were my opinion of the formation of them demanded, I should say it was probable that the blood, being extravasated from the vessels of the placenta, or having accumulated in its cells, that tuberculated surface was produced by an irregular and great distention, or, perhaps, rupture of them. Notwithstanding, I presumed it was evident that some of the veins, or sinuses of the placenta, had degenerated into these tumours, as their regular progression could apparently be traced.

"The woman, during the growth of this mass within the uterus, had every symptom of pregnancy. The breasts, when she is not pregnant, are scarcely observable; now, they are rather prominent, and distinctly marked. About the third month of gestation, a soreness was always produced by pressure; this she felt at this time, under the same circumstances. She had the same feelings, the same nausea, and the same capricious appetite, she always had when with child. There was a prominent firmness of the belly, and a total disappearance of the menses. At the time she was taken ill, she expected to quicken; but she yet had not felt any internal motion.

"Here are the most satisfactory symptoms that accompany a natural and common conception, yet not even the rudiments of a child have, by the strictest examination, been discovered. The bag in which the child, if it had existed, would have been found, was, as far as I could judge from a particular inspection, perfectly entire. It, therefore, cannot be consistently conjectured that the child might have escaped at the time of the flooding.

"That the womb had not contained a fœtus, even just before the threatening of the supposed abortion, is proved beyond doubt, by there not being the remains of a funis, or by the mark of its

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"* I cannot say whether this vesicle contained air or water, as it was relaxed before I could attend to it."

attachment

attachment not existing. Nature, very likely, intended to have created a child, but, whether the embryo had been formed, and afterwards dissolved, I do not know; nor, indeed, have I at this moment leisure to prosecute the inquiry with sufficient steadiness: I shall, therefore, leave it to the ingenuity of others.

"The 9th plate in Denman's 4to. edition, published in 1805, gives a pretty correct representation of the body I have endeavoured to describe.

"I have searched Morgagni, and many other celebrated authors, with some degree of diligence; yet not one case have I been able to find exactly correspondent to this. Every case that throws light upon medical jurisprudence, must, by every well-wisher of mankind, be considered highly important, not only in a judicial, but in a moral and political point of view. Our present knowledge of it is very limited; our ideas unsettled, and indefinable. The works written professedly upon this subject, are either too confined in their plan, or too speculative in their execution. Cautious deductions, drawn from absolute facts, or facts themselves, should constitute a practical system of medical jurisprudence.

"Those characters by which we are taught to distinguish a uterus lately impregnated, are, a ruggedness of a certain extent, according to the time of gestation of its internal surface,—the size of its cavity,—the thickness of its walls,—and the largeness of its mouth. But, upon the first of these, the greatest stress is laid. I seriously ask you, then, would not the womb of my patient have exhibited the same characters? Now, sir, had this woman died from hæmorrhage, and had her death been made a subject of legal investigation; and had I been desired to examine the body, without having any previous knowledge of the person, what evidence must I have given? Had I doomed an innocent fellow-creature to eternal infamy by rashly swearing that a child had been recently expelled from the womb,—from the placental mark, from the capacity of the cavity of the uterus, and from the dilatation of its mouth,—I should have been supported by gentlemen who are justly regarded as some of the brightest ornaments in the medical world. The mark of a placenta has, by very eminent practitioners, been insisted on as 'an indubitable proof of the existence of a child.' I most sincerely wish, for the good of society, it could be proved to be so. I am not ashamed to confess that I am totally unacquainted with any circumstance, which, with certainty, points out the difference in this womb from a womb having contained a fœtus. But perhaps the kindness of some of your correspondents will favour me with information on this subject, which will much oblige, &c."

The first inquiry we would make is the nature of the injury, whether likely to be sufficient to induce miscarriage? Next, as the patient had miscarried before, whether about the same period of supposed pregnancy, and what was the

appearance of the abortion? We may next remark, that, whatever may have been the nature of the substance in the present instance, the short period between the injury received and the discharge, prevents any suspicion that the first could have influenced the nature of the second. The various forms described as composing the contents of the sac, are such as frequently occur where hydatids are discovered; and scarcely a description of steatomatous tumours is unattended with other cysts filled with different substances. Dr. Adams, in his "Treatise on the Cancerous Breast," has shown the almost universal connection of these substances with each other; and does not scruple to assign to them the same origin and the same laws. We say nothing about the too common expression of blood-vessels of any kind "*degenerating* into these tumours." We can only describe them as we see them; and, if we must use an expression consistent with our opinion, it would be that the cysts were found in different stages of growth or maturity, attached to each other, or to the blood-vessels.

[The quantity of original matter which has pressed upon us lately, has prevented the insertion of any review of SPURZHEIM'S Craneology for the last month.]

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

ON the 8th of March was the Anniversary Meeting of the *Medical Society of London*. The oration, delivered by Mr. TAUNTON, comprehended a succinct but complete view of the various kinds of hernia, and the methods of treatment, whether by operation or by artificially retaining the contents of the abdomen or pelvis. Specimens of various trusses were exhibited, and the advantages and disadvantages of each pointed out.

The following were chosen officers for the ensuing year:—President, Dr. Joseph Adams; Vice-Presidents, Dr. Clutterbuck, Dr. Babington, Mr. Abernethy, and Mr. Norris; Treasurer, Mr. Andrée; Librarian, Dr. Hancock; Secretaries, Dr. Fothergill and Mr. Blegborough; ditto foreign correspondence, Dr. Taylor; and Registrar, Mr. Pettigrew; Orator for the ensuing year, Dr. Clutterbuck.

Apothecaries' Hall, Feb. 20, 1815.—The Society of Apothecaries having completed several new arrangements in their laboratories, in which steam is employed for the purposes of evaporation, distillation, &c. such professional gentlemen as are desirous of viewing these improvements are informed, that they will be open for their inspection on the second Tuesday in March, April, May, and June, between the hours of two and three o'clock in the afternoon.

There

The Society of Apothecaries have published an outline of their Bill before Parliament, and a Statement of the Motives which have induced them to apply for such Bill. These we shall give in our next.

The following being a circular letter sent to the county members of Berks, and also to the members of each borough-town in the county, we are requested to insert it in our Journal.

Crown-Inn, Reading; March 22, 1815.

Sir,—A meeting of the medical gentlemen of the county being held here by public advertisement, for the purpose of taking into consideration the propriety of petitioning Parliament on the subject of the proposed additional Assessment on Horses, Carriages, and Servants; it was communicated to them, that similar Petitions had not been received, being contrary to a standing order in the Houses pending a Money Bill.

The meeting respectfully solicit your particular attention to this subject, requesting, that, when it comes under the consideration of Parliament, you would have the goodness to endeavour to obtain for them that relief which their peculiar situation requires.

(Signed, by the order of the meeting,) Windows Golding, Chairman.

P.S. It may not be amiss to state, that, in the late Tax of "Treble Assessment," Mr. Pitt thought it right to afford Medical Practitioners relief on Horses and Carriages.

M. Donovan, secretary to the Kirwanian Society in Dublin, has read a paper, in which he endeavours to shew that the principles of Galvanism and Electricity are different, the former being more immediately connected with chemical affinity than the latter. We shall, for the future, avoid as much as possible anticipating the crude accounts collected from the different societies, reserving our opinions till their transactions are published. On the present occasion, however, we believe most of our readers will join in the opinion that there has always appeared something in the laws of these two phenomena not strictly reconcileable to each other, though in many respects they accord so perfectly.

Dr. Ayrton Paris, who has settled at Penzance, to whom we are obliged for a valuable practical treatise on Pharmaceutic Chemistry, has availed himself of his chemical knowledge in his new situation, and established a Geological Society for the county of Cornwall, abounding in minerals, some of which are with difficulty met with in any other part of the world. The Prince Regent has become its patron.

"It was resolved, that a deputation should present an address of thanks to his Royal Highness, for the great honour conferred upon them; and that it should consist of the Vice Patrons, Lord De Dunstanville, and the Earl of Yarmouth; the President, Davies Giddy, Esq. M.P.; and its founder, Dr. Ayrton Paris.

"Apartments have been provided at Penzance, which contain a collection of minerals already highly interesting: among the later additions we may notice *rutilute*, lately discovered in the slate quarries at Tintagel; *a grey copper ore* from Crennis mine, the composition of which resembles the *fal-erz*, with the exception of lead, (on the authority of the Rev. William Gregor.) *Wood tin*

from Trethurgy Moor, near St. Austel, in a matrix of short and quartz. *The triple sulphuret of antimony, lead, and copper*, which has re-appeared at the antimony mine, near Port Isaac, after a lapse of twenty years.—*Sulphate of barytes*, now found at Huel Unity, for the first time in Cornwall.—A large *quantity of stream gold*, presented by Sir Christopher Hawkins, with an interesting account of its discovery, in which he states that it was found in streaming for tin in a moor in the parish of Ladock; and offers some information, which he trusts may direct future adventurers to a successful undertaking.—Many other communications have been also read before the society, which we shall notice as soon as they appear, as we understand the society are preparing a volume of Transactions, which are shortly to be published."

Another instance has occurred of Hydrophobia in St. Bartholomew's Hospital. The patient was brought to the house immediately after the accident, but either the dog was not suspected to be rabid, or the part bitten was so situated as to render amputation impracticable. At the end of about six weeks the symptoms appeared. Venesection was tried to a considerable extent, but without any advantage.

There has been and still exists an epidemic fever in Cambridgeshire, which has penetrated the University, where it has proved fatal to some of the students. We are promised a communication on the subject, and shall be thankful for others.

Dr. William Cullen Brown, of 50, Rathbone-Place, son of the distinguished author of the Brunonian system, has announced his intention of giving instructions to medical students and practitioners who may require assistance in the literary part of their education.

We have been informed, that a new edition of the Pharmacopœia Londinensis is in great forwardness. The college, it seems, has condescended to consult some practical chemists on the occasion; we may therefore hope for a less imperfect production than the one now in use, the inaccuracies of which have been so severely animadverted upon in various publications. At the request of the college committee, Mr. Hume, of Long Acre, has examined several of the formulæ, particularly that for Antimon. Tartaris. for which that ingenious chemist has devised some new processes, one of which, we understand, is approved of and will appear in the new edition. It is prepared from the black sulphuret of antimony, which is decomposed by nitrate of potash and sulphuric acid. The process is attended with no difficulty and little expence; and the emetic tartar produced is perfect in the figure of its crystals, and in all respects extremely neat and pure, being as white as the super-tartrate of potash itself, and in efficacy not to be surpassed.

Chameleon, Colours, Bats, Parrots, Monkeys.—Mr. Forbes (in his Oriental Memoirs, an interesting and splendid work), when at

at Dazagan in Concan, then belonging to the Mahrattas, kept a chameleon for several weeks, and paid great attention to its changing colours. Its general colour was "a pleasant green," spotted with pale blue. Its customary changes were to a bright yellow, a dark olive, and a dull green; but, when irritated, or when a dog approached, in which case fear was perhaps the operating cause, the body became considerably inflated, and the skin clouded like tortoiseshell, in shades of yellow, orange, green, and black: in these circumstances it appeared to most advantage. The animal was most singularly affected by any thing black: the skirting-board of the room was black, and the creature carefully avoided it; but if, by chance, he came near it, or if a black hat were placed in his way, he shrunk to a skeleton and became black as jet. It was evident, by the care he took to avoid those objects which occasioned this change, that it was painful to him. The colour seemed to operate like a poison.

Obliged one night to take up his quarters in the tomb-chambers of a Mahomedan grave (for the houses were not to be defiled by admitting a Christian), Mr. Forbes had first to drive out the previous occupiers—some enormous bats, from their size denominated "flying foxes." Those animals frequently measure six feet from wing to wing.

On the coast where Angengo is situated, the parrots are as much dreaded at the time of harvest, as a flight of locusts, or a desolating Mahratta army. They darken the air by their numbers, and when they alight in a rice-field carry off every grain in a few hours.

At Dhuboy, the capital of a district containing 64 villages, of which Mr. Forbes was appointed governor (after its surrender to General Goddard in 1780), he found as many monkeys as human beings. They seemed to have full possession of all the roofs of the houses; and they are sometimes called in as auxiliaries in disputes between neighbours. In quarrels of this kind they never have recourse to blows, but employ every kind of invective against each other and against all their relatives. The person who is worsted in this war of words, frequently takes an opportunity to strew some rice over the roof of his adversary's house. The monkeys soon discover this treasure, and resort in crowds to pick it up: when finding that much of it has fallen between the tiles (which are not nailed down as with us), they make no scruple to remove them, and nearly unroof the house. When workmen cannot be procured to repair the roof, rain is admitted, which ruins the furniture and the stock of grain.

Announced Metallization of Charcoal.—Mr. Dobereiner, Professor of Chemistry of the University of Jena, in Saxony, informs Mr. Accum that he has discovered charcoal to be a *metallic compound*. The following lines he has received from Mr. Dobereiner on this subject:—

"I hope to be able to communicate to you the successful metallization of charcoal, which I have found con-

tains a metallic base. In cast iron and in steel the metal is present in a metallic state, and may be separated from both of them by the united action of phosphorus and an alkali. Further particulars, concerning this subject, I will transmit to you in my next.

" *To Mr. Accum, London.* DOBEREINER."

The following statement respecting the City or Royal Hospitals was read at the Mansion House:—

CHRIST'S HOSPITAL.

Children put forth Apprentices	162
Children buried last year	6
Children now under the care of the Hospital at Hertford and London	1,053
To be admitted on Presentation	130

ST. BARTHOLOMEW'S HOSPITAL.

Patients admitted, cured, and discharged last year	9,236
Buried last year	288
Remained under cure—In-patients	407
——— Out-patients	215
So there has been under the charge of the Hospital last year	10,146

ST. THOMAS'S HOSPITAL.

Cured and discharged last year—In-patients	2769
——— Out-patients	6323
Remaining under cure—In-patients	411
——— Out-patients	316
So there has been under the charge of the Hospital last year	9,994

BRIDEWELL HOSPITAL.

Vagrants committed by the Lord Mayor and sitting Aldermen	240
Paupers to be sent to their Parishes	558
Apprentices now in the Hospital, brought up to divers trades	35

BETHLEM HOSPITAL.

Distracted Men and Women remaining Dec. 31, 1813	143
Admitted during the year 1814	93
Cured and discharged	109
Buried	8
Remaining under cure	119

Dr. SPURZHEIM recommenced his Lectures on Friday last.

Dr. DAVIS will commence his Summer Course of Lectures on the Theory and Practice of Midwifery, on Monday, the 24th of April, at his house, 18, Lower Charlotte-street, Bedford-square.

Dr. MERRIMAN's Course of Lectures on Midwifery, &c. will re-commence at the Middlesex Hospital, on Monday, April 10th.

To the Editor of the Medical and Physical Journal.

SIR,

HAVING inserted a letter in the last Number of your Journal from Mr. Walker, in justice, as you say, to that gentleman, I have to request a similar favour in justice to myself.

The reason for my omitting the words " because it is the most familiar

familiar instance of fermentation," or in the language of Mr. Walker, "*mutilating*" his illustration, was, that I conceived they had nothing to do with the point at issue. All that was requisite was, that the example adduced should be appropriate; and, if it were not, its being familiar would not render it so. Does the supplying of the passage omitted make any thing more for the existence of Mr. Walker's *essence?* I must allow with you, Sir, that protracted controversies even on practical subjects become irksome; how much more must those become which are purely hypothetical? Mr. Walker clings, however, to the last, to his beloved essence, as a fond parent to the corse of his departed offspring. *Requiescat in pace.* I am, &c. JAS. WOODHAM.

March 2, 1815.

REPORT OF DISEASES.

THE Chronic Cough and Dyspnœa, generally so prevalent at this season of the year, has much declined. Some cases of Acute Pulmonic Inflammation, however, have occurred. In two instances, the pain was inconsiderable, and the symptoms did not appear to the patients or their friends to indicate any danger, until very near the termination of the disease, when the physician who was called in had no hesitation in pronouncing the complaint to be too far advanced for art to relieve. One of the patients was an elderly woman, the other an infant; and both were probably lost for want of bleeding in the commencement of the disease.

Pulmonary Consumption, in spite of the mildness of the weather, has been frequent. In this disease, cold does not seem to be so prejudicial as the atmospheric variations, which occur in our climate even in a mild season. But there are other causes combining in the production of this disease, too much neglected by physicians, and often entirely lost sight of in the treatment. The subjects of consumption are generally of a tender delicate habit, easily affected by external agents, and often endowed with a sort of morbid sensibility. Their minds are excited by the exhilarating passions, or depressed by slight disappointments; and the circulation and respiration are hurried by the most trifling occurrences. In such cases, a high temperature will rather tend to accelerate than to retard the progress of the disease. The medicines which in a few solitary instances have proved efficacious, are emetics and fox-glove, and these seem to produce the beneficial effect by acting on the sanguineous system and reducing the velocity of the pulse. It is, therefore, a legitimate inference, that whatever produces a contrary effect is prejudicial. If the febrile state and frequency of the pulse be increased, whether by external heat or mental emotion, the effect is bad, and the exciting cause should, if possible, be removed. But heat has a direct and immediate effect on the pulse, and the long-continued application of it renders the mind irritable and the body more susceptible of disease. The variation of the seasons is conducive to health, both by relieving the mind from lassitude, or rather ennui, into which it is apt to degenerate from a constant sameness of weather; and the body is invigorated and refreshed by the salutary changes of atmosphere which nature has prescribed. These, however, have their limitations; and in disease it becomes the physician to observe how he can modify and direct them to advantage. If some patients have received benefit from being confined during the winter months in heated apartments, others have regained their health under very opposite circumstances. As far as the Reporter's own experience extends, females seem to bear confinement better than males, which may readily be accounted for from their constitutional difference.

LONDON

LONDON PRICES OF DRUGS.—March 23, 1815.

	£	s	d.	£	s.	d. per
Aloes Barbadoes, from	22	0	0	to 0	0	0 C.
—— Cape	6	10	0	.. 7	0	0 —
—— Succotrina	23	0	0	.. 0	0	0 —
—— Epatica or E.I.	14	0	0	.. 16	0	0 —
Angelica Root	7	10	0	.. 8	0	0 —
Alkanet Root	5	10	0	.. 6	0	0 —
Antimony Crude	2	18	0	.. 3	5	0 —
Aqua Fortis	8.	0	8	.. D.	1	1 lb.
Arrow Root, fine	0	2	0	.. 0	3	6 —
—— ordinary	0	0	9	.. 0	1	3 —
Arsenic, Red	4	4	0	.. 4	10	0 C.
—— White	2	16	0	.. 0	0	0 —
Balsam Copivi	0	4	10	.. 0	5	0 lb.
—— Peru	1	0	0	.. 1	1	0 —
—— Tolu	0	14	6	.. 0	15	0 —
Bark Jesuits', Com.	0	3	6	.. 0	4	0 —
—— Second	0	6	0	.. 0	7	0 —
—— Quil or best	0	8	0	.. 0	10	0 —
—— Red	0	8	8	.. 0	9	0 —
—— Yellow	0	2	0	.. 0	2	2 —
Borax, refined E.I.	none.					
—— English	0	2	8	.. 0	3	0 lb.
—— unrefined or Tinc.	6	10	0	.. 7	15	0 C.
Camphire, refined	0	6	0	.. 0	6	3 lb.
—— unrefined	16	0	0	.. 17	10	0 C.
Cantharides	0	10	6	.. 0	11	6 lb.
Cardamoms (best)	0	6	6	.. 0	7	6 —
Cassia Buds	32	0	0	.. 0	0	0 C.
—— Fistula, W.I.	5	5	0	In bond		—
—— Lignea	42	0	0	.. 45	0	0 —
Castoreum American	2	10	0	.. 3	0	0 lb.
—— Russia	11	11	0	.. 0	0	0 —
Castor Oil, per bottle 1¼ lb.	0	3	9	.. 0	4	0 bo
Cocculus Indicus	6	0	0	.. 7	0	0 C.
Colocynth Turkey	0	5	0	.. 0	5	9 lb.
Columbo Root	4	15	0	.. 6	0	0 C.
Cream of Tartar	5	0	0	.. 5	15	0 —
Gallangal East-India	uncertain		..	0	0	0 C.
Gentian Root	3	10	0	.. 3	15	0 —
Ginseng	none		..	0	0	0 lb.
Grains of Guinea	6	10	0	.. 0	0	0 C.
Gum Ammo. Drop	none		0	.. 0	0	0 —
—— Lump	5	0	0	.. 7	0	0 —
—— Animi	3	10	0	.. 7	10	0 —
—— Arabic, E. I.	2	0	0	.. 4	0	0 —
—— Turkey, Fine	8	15	0	.. 10	10	0 —
—— Barbary	5	5	0	.. 0	0	0 —
—— Assafœtida	10	0	0	.. 15	0	0 —
—— Benjamin	15	0	0	.. 60	0	0 —
—— Gambogium	28	0	0	.. 30	0	0 —
—— Copal, scraped	0	5	9	.. 0	6	0 lb.
—— Galbanum	30	0	0	.. 0	0	0 C.

	£	s	d.	£	s.	d per
Gum Guaiacum, from	0	2	6	to 0	3	0 lb.
—— Mastic	0	4	8	.. 0	4	6 —
—— Myrrh	15	0	0	.. 18	0	0 C.
—— Olibanum	8	0	0	.. 11	0	0 —
—— Oppoponax	80	0	0	.. 0	0	0 —
—— Sarcocolla	8	0	0	.. 8	5	0 —
—— Senegal	6	15	0	.. 7	0	0 —
—— Tragacanth	27	0	0	.. 0	0	0 —
Jalap	0	4	6	.. 0	4	9 lb.
Ipecacuanha	0	14	6	.. 0	15	0 —
Isinglass Book	0	9	0	.. 0	10	0 —
—— Leaf	0	7	10	.. 0	8	6 —
—— Long Staple	0	9	0	.. 0	10	0 —
—— Short Staple	0	8	6	.. 0	9	6 —
Manna Flakey	0	4	9	.. 0	5	0 —
—— Sicily in Sorts	0	0	0	.. 0	0	0 —
Musk China	0	14	0	.. 0	16	0 oz.
Nux Vomica	0	0	0	.. 2	2	0 C.
Oil of Vitriol	0	0	3½	0	0	4 lb.
Opium, East India	none		..	0	0	0 —
—— Turkey	1	4	0	.. 0	0	0 —
Pink Root	0	4	0	.. 0	4	6 —
Quicksilver	0	6	3	.. 0	6	6 —
Rhubarb, East-India	0	9	0	.. 0	13	0 —
—— Russia	0	18	0	.. 1	0	0 —
Saffron, Spanish	2	10	0	.. 2	12	0 —
—— French	1	18	0	.. 2	0	0 —
Sago	6	15	0	.. 8	10	0 C.
Sal. Ammoniac	10	10	0	.. 11	10	0 —
Sarsaparilla	0	2	3	.. 0	4	9 lb
Sassafras	7	10	0	.. 8	0	0 T.
Scammony, Aleppo	1	9	0	.. 1	10	0 lb.
—— Smyrna	0	18	0	.. 0	0	0 —
Senna	0	4	6	.. 0	5	0 —
Seeds, Anni, Alicant	4	15	0	.. 5	0	0 C.
—— Coriander English	0	14	0	.. 0	0	0 —
—— Cummin	5	1	0	.. 0	0	0 —
—— Fenugreek	1	15	0	.. 0	0	0 —
Shellack	7	10	0	.. 10	15	0 —
Sticklack	3	10	0	.. 7	0	0 —
Snake Root	0	15	6	.. 0	0	0 lb.
Soap, Castile or Spanish	0	0	0	.. 10	0	0 C.
Spermaceti, refined	0	2	2	.. 0	0	0 lb.
Tamarinds, West-India	0	0	0	.. 10	0	0 C.
Taploca, Lisbon	0	0	0	.. 0	1	0 lb.
Turmeric, Bengal	4	10	0	.. 4	15	0 C.
—— China	6	10	0	.. 7	0	0 —
—— West-India	3	10	0	.. 4	4	0 —
Verdigris, Wet	0	3	6	.. 0	0	0 lb.
—— Dry	0	6	0	.. 0	6	6 —
—— Crystallized	0	8	0	.. 0	8	6 —
Vitriol, Roman	0	0	7	.. 0	0	0 —
—— Foreign white	2	10	0	.. 0	0	0 C.

Price of Vials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. 36s.—1 oz. 30s. —½ oz. 24s.

Lisbon Leeches, 30s. per Hundred.—True French ditto, 45s.

Essential Salt of Lemons, 4s. 6d. per dozen.

METEOROLOGICAL REGISTER.

From February the 23d, to March the 25th, 1815.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure. Max.	Min.	Mean.	Temperature. Max.	Min.	Mean.	
	24	NW	30	30	30	54	41	47·6	Fair
	25	NW	30	29·98	29·99	53	42	48·3	Fair
	26	NW	30	30	30	54	41	48·3	Fair
	27	NW	30·49	30·38	30·395	50	30	49·3	Fair
	28	NW	30·39	30·28	30 31	46	36	41·3	Fair
	1	SW	30·19	30·11	30·145	54	39	45	Fair
◑	2	SW	30·18	30·18	30·18	50	37	45·6	Rain
	3	SW	30·16	30·12	30·14	50	39	43	Fair
	4	S	30·21	30·18	30·195	52	42	44·6	Fair
	5	S	30·19	30·19	30 19	55	43	48·3	Gloudy
	6	SW	30·18	30·13	30·167	55	40	47	Fair
	7	SW	29·9	29·75	29·807	51	41	44	Cloudy
	8	W	29·46	29·37	29·397	50	38	46	Stormy & Rain
	9	W	29·37	29·30	29·325	46	34	43	Rain
	10	NW	29·56	29·42	29·477	49	32	39 6	Rain
◔	11	NW	29·56	29·41	29 49	48	33	42·6	Fair
	12	NW	28·95	28 95	28 95	49	37	44	Fair
	13	NW	29 19	28·92	29·035	50	34	44	Fair wind hail & thunder at 5 p m.
	14	NW	29·85	29·59	29·682	50	33	42·3	Rain
	15	W	29·99	29 83	29 892	55	40	46·6	Rain
	16	SW	29 85	29·68	29 773	61	44	53	Rain
	17	NW	29·97	29·91	29·937	56	44	49	Wind Fair
◐	18	NW	30·09	30	30·012	55	42	48 3	Rain
	19	NW	30	30	30	56	48	50·6	Cloudy
	20	SW	29·91	29 87	29·817	60	44	52·6	Cloudy
	21	SW	29·79	29·55	29·685	60	48	54·3	Cloudy. Rain.
	22	W	29 6	29·55	29·576	59	45	52·3	Stormy Wind
	23	W	29 37	29·25	29·337	58	44	53	Wind & Rain
	24	W	29·30	29 30	29·30	57	44	50·3	Wind & Rain
○	25	W	29 47	29 32	29 37	57	47	49 6	Wind & Rain

RESULTS.

Mean barometrical pressure of the month	29·7867	Mean temperature of the month	46·575 deg.
Maximum 30·43 wind at	NW	Maximum 61, wind at	SW
Minimum 28 92 wind at	NW	Minimum 30, wind at	NW

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
0	0	0	0	2	8	7	13

	Mean barometrical pressure.	Mean temperature.
From the full moon on the 23d. Feb. to the last quarter on the 2d March	30·145	45·63
—— last quarter on the 2d, to the new moon on the 11th	29·798	44·23
—— new moon on the 11th, to the first quarter on the 18th	29·611	46·74
—— first quarter on the 18th, to the new moon on the 25th	29·593	51·8

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

A TREATISE on Fever, with Observations on the Practice adopted for its Cure in the Fever Hospital and House of Recovery, in Dublin. By William Stoker, M.D. 8vo.—Longman and Co.

Researches about Atmospheric Phenomena. By Thomas Forster, F.L.S. Second edition corrected and enlarged; with a Series of Engravings, illustrative of the Modifications of the Clouds, &c. 8vo.—Baldwin and Co.

Practical Observations on Necrosis of the Tibia; illustrated with Cases and a Copper-Plate. By Thomas Whately, Esq.

A Treatise on the Diseases of Arteries and Veins, containing the Pathology and Treatment of Aneurisms and Wounded Arteries. By Joseph Hodgson, Esq. 8vo.—Underwood.

Engravings intended to illustrate some of the Diseases of Arteries. By Joseph Hodgson, Esq. 4to.—Underwood.

Mineralogical Nomenclature, alphabetically arranged, with Synoptic Tables of the Chemical Analysis of Minerals. By Thomas Allan. 8vo.

Physiological Researches on Life and Death. By Xavier Bichat; translated from the French by F. Gold, Member of the Royal College of Surgeons, London. 8vo.—Longman and Co.

M. Portal has published a new edition of his Considerations sur les Maladies Hereditaires, avec Plusieurs Observations de l'Auteur, de celles de Professeur M. Mazzoni, & de M. Joseph Adams, M.D. de Londres.

Works preparing for the Press, &c.

Dr. Pinckard is preparing for early publication, a new edition of the Notes on the West Indies, in two volumes, with considerable alterations and additions. The new matter will contain Remarks on the Islands of Martinique, Jamaica, and St. Domingo, also on the Condition and Treatment of the Slaves, and a Suggestion for effecting their Emancipation; together with additional Observations concerning the Seasoning, or Yellow Fever of the Tropical Regions.

Dr. Ronalds, of Coventry, is preparing for the press, a Translation of the celebrated little work of Cabanis, On Certainty in Medicine.

Sir James Fellowes intends publishing shortly, some Reports on the Pestilential Fever of Spain, being the Result of his Observations and Enquiries into the Origin and Progress of that Disorder in Andalusia in 1800, during a Residence of Five Years in that Country; and a particular detailed Account will be given of the Fatal Epidemic at Gibraltar in 1804, and of the two last at Cadiz in 1810 and 1813.

Preparing for re-publication, The Anatomical Plates of the Human Gravid Uterus, Size of Nature; by the late William and John Hunter; accompanied by accurate Descriptions. The Work has been very scarce.

In a few weeks will be ready for publication, General Anatomy applied to Physiology and Medicine; translated from Anatomie Generale, 4 tome, par Bichat, Physician to the Hospital of Humanity, and Professor of Anatomy and Physiology at Paris.

Mr. Grainger, surgeon of Birmingham, has a work in the press, on a New Mode of Opening the Bladder in certain Obstructions of the Urethra and Prostrate Gland; and on a simple Method of removing the Tonsils from the Throat, and other Tumours from the accessible Cavities of the Body.

Dr. Kentish, of Bristol, is at present preparing for the press, a new and greatly improved edition of his Essays on Burns.

NOTICES TO CORRESPONDENTS.

We are much obliged to Dr. Parry for his polite hint relative to one of our French articles. Our only apology must be, that we selected it from the American Journals before the original work came to hand. Several acceptable communications have been received.

THE

Medical and Physical Journal.

5 OF VOL. XXXIII.] MAY, 1815. [NO. 195.

"For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable series."—RUSH.

To the Editors of the Medical and Physical Journal,
No. 1, Paternoster-row, London.

GENTLEMEN,

I HAVE been in the habit of taking your Journal for several years, but my bookseller has now sent me a different publication, saying yours is discontinued: I beg to know if that is the case, as I certainly give your's a decided preference to any I have seen.

I am, Gentlemen,

Cardiff, Your obedient servant,
March 23, 1815. THOMAS VAUGHAN.

THE Proprietors feel grateful for the above communication; nor can they wonder at the delicacy of Dr. Vaughan in declining to answer their inquiries after the name of the bookseller. They find no difficulty in guessing his motives. It affords them another opportunity of expressing their gratitude for increased communications; and to assure the public, that nothing can be further from their intentions than to relinquish a concern, the encouragement of which has been found progressively greater every succeeding year.

N.B.—The demand for complete sets, and for single numbers, has been so considerable since the opening on the continent, that very few are left of many of the early numbers: we would, therefore, recommend our friends who have imperfect sets, to complete them without delay, to prevent disappointment.

For the Medical and Physical Journal.

Case of supposed Labour, in which a Mass of Hydatids and a Placenta were brought away, without any Fœtus being discovered; with some Observations on Retroversion of the Uterus; by JOHN CHARLES COLLINS, M.D. F.L.S. one of the Physicians to the Swansea Dispensary.

FEBRUARY 23, 1815, I was sent for to see Mrs. J. supposed to be in labour by the midwife who usually attended her, who informed me she had been lingering the last thirty hours; and that, just before they sent, she had, during a slight pain, passed a something, supposed to be the placenta, and which, upon my examining, I found to be a congeries of hydatids, forming a globular mass, of the size of a large lemon. But, as a considerable discharge continued, I immediately examined and found the os tincæ much dilated, and a soft mass protruding and filling it up. I remarked it had an unusual cold sensation. A slight pain soon coming on, I brought it away, followed by a copious discharge. This appeared to be a substance of a similar kind to the first; and, upon placing my hand on the abdomen, I found the uterus contracted to the usual size it is felt after regular parturition. Ordering her an opiate, I left the room, to examine more particularly the two substances which had been produced. The first appeared a complete mass or congeries of hydatids, of the size of small nutmegs, united together on all sides; upon cutting through which, I could not find any remains of a fœtus; the centre composed of a number of connected blood-vessels, and I discovered what I supposed to be the umbilical cord, ruptured close to its entrance into the mass. The hydatids were of a very yellow colour; and the whole appearance of the substance reminded me of a very closely connected bunch of grapes. The second portion was evidently the placenta, about the size of a small full-timed one, one surface thickly covered with pendulous hydatids, of various sizes, from that of a large olive to a lupin seed. The necks of the larger were more than an inch long, with many smaller ones. The uterine vessels of the placenta evident on one side, and the remaining portion of the funis very small, and about four inches long. I inquired of my patient the history of her case, and she stated as follows:—That she is 27 years old; has had five living children; and is of a delicate constitution. She supposed herself in her seventh month of pregnancy; speaks confident as to her having felt the child at the fourth month, the usual time she quickens; that it was about the fifth

month

month a change took place; her breasts became flaccid; her size diminished; and she always dreaded that the child died at that time, though she could not attribute it to any accident. Three days before I saw her, from a little over exertion, she brought on a coloured discharge, which continued until about thirty hours before I saw her, when regular but slight pains came on, and during one of which the first portion came off, when they were alarmed, and sent for me. Her general health, from the fifth month, declined fast. The usual discharge continued after the passage of the second mass, in the same manner as if she had been regularly confined, and she is now completely recovered.

Cases of false conception, mola, and hydatids, are frequently to be met with in medical authors; but I do not recollect reading of any case exactly similar to this, for I look upon the child having lived to quicken, or become of that size that it arose out of the pelvis, as almost certain; there was no reason for deception. Smellie* supposes that, should the child die in the first or second month, it may be entirely dissolved, and even at a later period. Denman† defines such cases ovum deforme, and arranges them under the class of monsters; but adds, "if carefully examined with a knife, various parts of a child may be discovered." The change here was so complete as not to leave a vestige behind. Burns‡ says, "moles are generally expelled within three months, or usual time of quickening; but adds, no motion is felt, or child can be perceived, and the breasts are flaccid. In Mrs. J.'s case, motion was felt, and the breasts did not become flaccid, but were enlarged, as usual, until after that period; but he quotes a case where the lochia followed expelled hydatids. In Home's§ case, which terminated fatally, the hydatids were attached to the surface of the membrane, and he supposed it a general affection of the amnion; and Denman supposed them sometimes an original production of the uterus. Cases wherein the placenta is affected, or generates hydatids, may be numerously quoted; but in Mrs. J.'s case there appeared a considerable difference in shape and colour, between those attached to the placenta, and those forming the fœtal mass. Those attached to the former corresponded to the description given by Dr. Bailey,‖ consist-

* Smellie, vol. i. p. 128.
† Denman, vol. i. p. 118.
‡ Burns's Midwifery, p. 79.
§ Transact. of Med. and Chirurg. Society, vol. ii. p. 300.
‖ Bailey's Morbid Anatomy, p. 378.

ing of vesicles of an oval shape, with a narrow stalk or neck to each. Home,* in his Croonian Lecture, Nov. 11, 1790, mentions two species, one globular, another of an oval form. Dr. Monro† enumerates seven heads found in the human body: his sixth species, he says, is uncommon, being laterally united to each other. As in the case of the first portion expelled, his seventh species are those generally attached to the placenta. Dr. Parr states the number of varieties as eighteen, but only describes ten. The above case bears some analogy to one related by Mr. Lemon:‡ in both a placenta was found, but no fœtus. Mrs. J.'s case is more remarkable, from her positive conviction that she felt the child at the usual time. Was it possible that during the following three months the fœtus could have been so completely destroyed as to leave no vestige behind? Smellie states that a child of three months may be so dissolved in fourteen or fifteen days. The difference in the form of the hydatids on the fœtal and placenta masses, was also remarkable. In a judicial point of view, these cases are particularly interesting, as they prove the existence of a placenta without a fœtus, or the fœtus so changed as not to be recognised; and show how particularly cautious medical men should be in giving their evidence in cases of suspected delivery, where they have not an opportunity of examining what has been discharged. Cases of this kind excite a peculiar interest in my mind, from the circumstance of my being extensively engaged in the female department of medical practice, during which I have often met with cases of mola, false conceptions, and hydatids, as well as my holding the situation of coroner in an extensive and populous district in this county; and I do not hesitate at declaring it as my opinion, that the mark of a placenta on the uterus is not an indubitable proof of the existence of a child, though I think it is so of sexual intercourse having taken place.

Retroversion of the Uterus.—Since the public demonstration, by Dr. Hunter, of a case of retroverted uterus, in 1754, the subject has engaged the attention of many eminent men, and the symptoms and deranged position been clearly explained, though still a difference of opinion exists as to the cause, whether it is owing to the distension of the bladder, or relaxation of the parts. During my extensive practice in

* Med. Inst. and Obs. vol. viii. p. 193.
† Monro's Morbid Anat. p. 257.
‡ Edinburgh Journal, January 1815.

midwifery

midwifery for the last fifteen years, nine cases of retroversion have occurred to me; and, I am happy to say, all have terminated well. About ten years since, the two first happened; and, at that time, I was induced to think it absolutely necessary, after the extraction of the urine, to make use of those means recommended for the purpose of replacing the uterus, yet a recurrence of the displacement frequently took place upon the most trifling exertion, until the growth of the fœtus had sufficiently increased in size to prevent it. Under these circumstances, and being convinced that relaxation of the parts was a very frequent cause of the repeated fall of the fundus, frequently and greatly promoted by a distended bladder, I was induced, in the subsequent cases, to direct cold vinegar and water to be applied to the parts immediately upon the water being drawn off; to be repeated three or four times daily, particularly after each time of passing urine. By these means, my patients have been enabled to take sufficient exercise, for the purposes of general health. In three cases, I have been under the necessity of directing a piece of sponge, filled with vinegar and water, to be introduced, for ten minutes or a quarter of an hour, three or four times a-day; and, excepting in these three cases, I have never been under the necessity of introducing the catheter more than once; and thus the very unpleasant repetition of drawing off the urine, which, to a delicate female mind, is always irritating, has been obviated, exclusive of the very inconvenient absence of my patients from domestic duties being prevented; for, as far as my experience goes, it corroborates an observation of Dr. Denman as to the particular class of society most liable to be affected. He says, "I shall conclude these remarks (which, by the by, are excellent) with an observation which will appear extraordinary. Women who live in an humble situation of life, or in an unrefined state of society, are scarcely ever liable to this complaint, because they are free from the constraint of company; and those in the highest rank of the most refined society, not being abashed to withdraw from company, are nearly in the same situation; but those who are in a middle state of life, with decent, yet not over-refined, manners, have not cast off the bashfulness of the former, nor acquired the freedom of the latter, are most subject to the retroversion of the uterus."

JOHN CHARLES COLLINS.

For

For the Medical and Physical Journal.

An Account of Two Cases in which a large Quantity of Laudanum was Swallowed; by Mr. R. JONES.

OBSERVING, in your last Journal, a case of Recovery from the Effects of Opium, I am induced to send you a short account of two cases wherein my assistance was lately called, with the results attending.

On the morning of the 8th of December last, I was called to —— Wedgwood, No. 1, Chichester Rents; who had taken about half an ounce, or between that and an ounce, of Tinct. Opii. I saw him in about an hour after: his friends about him, having in the mean time discovered what he had done, sent to a neighbouring chemist, who administered to him an emetic, which had no effect. I took with me an ounce of Vin. Antimon. which I diluted with water, and at intervals got him to swallow. The patient was drowsy, and particularly chilly, arising, of course, from decreased arterial action. I directed the messenger who came for me, to give the patient half a pint of vinegar, as soon as he got back; and hence commenced my perplexity, for the opium, acid, or both conjointly, had acted on the stomach so much as a sedative, that, though he had taken first a strong emetic from the chemist, an ounce of antimonial wine, two scruples of ipecacuanha, and more than a quart of warm water, yet there was no disposition to vomit. However, after rumbling and tossing him about for near an hour, we were fortunate enough to see the desired effect. Similar vexation occurred to Mr. Rowe. As the evacuation of the stomach is the first consideration, ought we to delay that object by using acids, which, though they may coagulate or render inert the opium solution for a while, yet manifestly paralyse our first efforts? I am inclined to think we ought not, as acids themselves are, under such circumstances, strongly sedative. We well know that an inebriated man, when his stomach is inclined or actually rejects its contents, will instantly find it staid or relieved by the use of acids. This man recovered, but was weak and languid for some days after; and the discipline he underwent seemed to have cured him of all suicidical notions—he appeared repentant.

On Thursday the 16th of February last, I was called to Susanna Chettle, at No. 1, Carey-street, who had taken an ounce of Tinct. Opii. The viol, which was found by her, (and a tea-cup, out of which she had drank it,) could not have contained more. She was discovered about noon quite insensible; they immediately sent for me. I found her dying,

dying, as I supposed from apoplexy, having upon her the apoplectic snorting; but upon examination, and inquiring a little into particulars, added to the discovery of the viol, I had no doubt of the cause, but which was now too late to be remedied. She died in a few minutes after I arrived. She was about 60 years of age, given to drink, and had been inebriated the day before, which, no doubt, facilitated the action of the poison.

There is one thing which I wish to call the attention of your readers to in this and similar cases arising from vegetable poisons; which, in the absence of circumstantial evidence or direct proof, shall distinguish them from apoplexy. This is the state of the pupil. I have found it more or less contracted from the effect of vegetable poisons, and always according to the degree in which they acted. I have found it the same in people insensibly drunk: whereas, in effusions upon the brain, or into its ventricles, or concussion, I have invariably found it dilated.* I am aware that the belladonna, when applied to the eye, will dilate the pupil; but will it have the same effect when internally taken? However, the symptoms arising from the effects of these poisons, it is well known, vary in almost every individual; but it would be of great importance if this can be established as a distinguishing symptom.

R. JONES, Surgeon.

Chancery-lane; March 9th.

For the Medical and Physical Journal.

Essay on the Functions of the Nervous System; by Mr. C. W. SMERDON.

(Continued from p. 230.)

IN no instance, I will contend, is the analogy between galvanism and nervous energy so striking, as in the process of secretion: on the one side, we may instance the de-

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* I was called last summer to a young woman, about 18 or 19 years of age, who, without previous indisposition, fell down deprived of all sense, and died a few hours after. Upon opening her head the next day, I found the vessels of the dura and pia mater a little turgid with blood; but the cause of her death was found to be owing to an effusion of blood into the right lateral ventricle, which was plugged with a firm coagulum, and had expelled the water through its communication into the left, which also was filled with mixed blood and water. The pupil here was exceedingly dilated, proving that the same effect is produced by pressure from within the brain, as we usually find it from that without.

composition

composition of the alkalies; on the other, the decomposition of the blood. It matters not if galvanism be not nervous energy; it is sufficient to show that they are stimuli of peculiar kinds, and that their actions correspond.

The nerves of a gland accompany the arterial ramifications with remarkable exactness: for what other purpose can this be designed, than to perform, in conjunction with the blood, some important part of the secretory process. That this is the case, is rendered highly probable by the morbid increase of some of the secreted fluids, which occasionally supervene on violent gusts of passion in choleric people. The action of the cutaneous vessels, the functions of the kidneys, liver, stomach, bowels, &c. are sometimes considerably augmented or deranged from such a cause. The liver, in particular, is liable to become disordered by violent fits of anger; and jaundice may not unfrequently be traced to such a cause. Acute pain,* continuing for some time without intermission, has also been known to produce a similar effect. Fear, especially if accompanied by suspence, evidently increases or disturbs the secretory process. There are few people, I should suppose, who have arrived at the age of maturity, but what must have experienced in themselves the truth of this opinion; and we are told, that soldiers, just as they are about to engage with an enemy, frequently leave the ranks for the purpose of emptying the bladder or rectum.

Notwithstanding the opinion of Haller, modern physiologists are not disposed to admit that blood, which passes through a gland, undergoes any other preparation for secretion than an extremely minute division; but this by no means either constitutes decomposition, or has the power of bringing it about; for blood, being a passive fluid, cannot act upon itself, and therefore, if the agency of a powerful stimulus were not employed to destroy the attraction of cohesion which the elementary particles of the fluids bear to each other, and thus set them at liberty to form a new arrangement, the matter secreted would be exactly the same as the original—it would still be blood.

* Of this I once witnessed a striking example in Guy's Hospital. The subject of it was a strong healthy man, who had undergone the operation for the radical cure of hydrocele. Through some cause or other (which it is not my place to point out), a portion of the injected fluid became extravasated among the cellular membrane of the scrotum; the consequences of which were a violent inflammation of the part, with subsequent sloughing. The unfortunate sufferer became in the night delirious through excessive pain, and the next morning was discovered to be highly jaundiced.

Considering, then, that the analogy between nervous fluid and galvanism is sufficiently established, I will consider secretion to be a neuro-chemical process. The nervous filaments passing along with the arterial branches into the substance of a gland, decomposes the blood (partially or completely, according to the nature of the intended secretion) just at the place where the excretory ducts arise from the sides of the vessels, or within the entrance of the ducts; here the constituent parts of the blood, or its elementary particles, are directed by a power peculiar to the particular gland to form a new arrangement; and consequently this new arrangement ultimately becomes a new fluid.* The action of the nervous and arterial extremities in this process (consistently with the hypothesis which I have endeavoured to support on the source of animal heat) generates or evolves a quantity of free caloric; and, as a consequence of this action, a portion of blood becomes burnt or carbonized, which, mingling with that fluid, gives it the venous character. It is evident also, according to this view of the subject, that venous blood must be specifically hotter than arterial; for the caloric which is evolved, on raising the temperature of the blood in unison with the surrounding parts, will rather pass along with it into the veins, than take a retrograde course in direct opposition to the course of circulation.

The stomach and intestines act upon their contents by a motion which is peculiar to them; this motion is muscular; and is increased by whatsoever increases the action of the secreting membrane which lines their internal surfaces, as well as the numerous glands which are situated between their coats; for it is quite clear that the nervous filaments, which act on the muscular coat of the stomach and intestines, and those which are employed in the elaboration of their

* The elements of the blood, according to Berzelius, are carbon, hydrogen, nitricum, phosphorus, calcium, and iron, all combined with a portion of oxygen common to them all.

In the course of his treatise on Definite Proportions, this celebrated philosopher observes, that there is still another essential difference between organic and inorganic nature. This difference consists in the electro-chemical modification of the organic product, which does not appear to depend immediately on that which the elements have in inorganic nature; that is to say, on the original electrical modifications of the elementary substances.

It appears clear, that, in animals, Nature employs the nervous system to produce these new electro-chemical modifications, and to determine the nature and composition of the various substances produced in different parts of the animal body.

secreted fluids, are either the same, or are derived from the same branches. In the mouth, the food merely undergoes a mechanical process. It is broken down by the teeth, and mingled with the saliva. In the stomach, the process of digestion is chemical as well as mechanical. The bolus, previously prepared in the mouth, finds in the gastric fluid a most powerful solvent, and it is still further triturated by the motion of the stomach. These processes go on most vigorously at the cardiac extremity, and the anatomical structure of the stomach shews that it must be so. The par vagum of each side descends along with the œsophagus through the inferior muscle of the diaphragm; and, after sending off a branch to the pylorus along the small curvature of the stomach, and another to the cœliac ganglion, forms a plexus which is wholly distributed about the cardiac extremity. The arterial ramifications which are sent to this portion of the viscus, correspond in quantity with those of its nerves; for, besides the coronary artery, the major part of which is distributed about the cardia and left portion of the stomach, the cardiac extremity receives the vasa brevia, which are three or four considerable, though short, branches of the splenic artery. Thus, it appears, that a considerable part of the arteries and nerves which are sent to the stomach, are distributed about its cardiac extremity.

The essentials necessary for digestion are three in number, namely, gastric juice, heat, and motion; and these, I will contend, are products of actions between the nervous and arterial branches of the stomach; and, as the cardiac extremity is superabundantly supplied with these, so it is clear that digestion must go on most vigorously at that part.

The stomachs of all herbifenous animals that have not a plurality of them, are particularly capacious at the cardiac extremity: of this, the stomach of the rabbit may be given as a familiar instance; and it is a singular fact, that in this animal the cardiac extremity is almost always found more or less digested after death, particularly if it be allowed to remain a day or two unopened: this is another convincing proof of the superior activity of the stomach at that part.

Dr. Haighton* has suggested that the spleen is subservient to

* The doctor is of opinion, that, when the stomach is distended with food, its bulging extremity presses the spleen against the parietes of the abdomen with so much force, as not only to expel the blood which is contained in its convoluted veins, but also to prevent any blood from passing into it by the splenic artery; the consequences of which must be, 1st, an extraordinary quantity of

to the stomach as well as to the liver; and, if his opinion on the use of that viscus be correct, the process of secretion, and consequently of digestion, must be carried on with increased vigour at the cardiac extremity, whenever the stomach is distended with food. Thus have I endeavoured to shew, that the desiderata for digestion are also the products of a reciprocal action between the nervous and arterial extremities. The blood becomes decomposed by nervous energy, which, by a power inherent in the villous membrane of the stomach, is converted into gastric fluid: by this action, also, heat is generated, and the muscular coat of the viscus exerted to increased action.

The nerves and arteries, even, perhaps, to their ultimate branches, uniformly accompany each other; for no part of the skin, for instance, can be pricked without producing pain or drawing blood. For the production also of new matter, this reciprocal action between the blood and the nerves is constantly going on in every point of the body; and, as animal heat is one of the effects of that action, so we cannot be at a loss to account satisfactorily, not only for the beautiful equilibrium of temperature which uniformly exists when the harmony between the blood and the nerves is not disturbed; but also for the remarkable alternations in that temperature, which we witness in fever and inflammation, when the functions of the brain or nervous system are in a morbid state; nor can it be more difficult to explain, why the secretory and excretory processes should also be deranged at the same time, seeing that they are all dependant on one and the same cause.

The new products which are separated from the blood in various parts of the body by nervous and arterial action, may be divided into three classes. First, those fluids which are intended by nature for some ulterior purposes, such as the mucous fluids, the saliva, the gastric juice, and the bile; 2dly, the excretions, or such fluids as are immediately thrown out of the body, and which are the urine, the perspirable

of venous blood driven to the vena portæ; and, 2dly, a very considerable determination of blood to the vasa brevia, and the gastro-epiploica sinistra, which we know are distributed about the cardiac extremity and left portion of the stomach. I am well aware that this use of the spleen was not at first suggested by Dr. Haighton, but he was the first person who put it to the test of an experiment; and indeed the opinion is so very rational, that I am surprised Sir Everard Home did not mention it in his Introductory Lecture to the College on Comparative Anatomy.

matter, and the halitus from the lungs; and 3dly, coagulating gluten, which forms the bond of union between divided parts. The fluids which belong to the first class, as also the first of the second, differ very materially in their component parts from the blood, whilst the exudation from the lungs being pure water, is perfectly analogous to simple distillation.

The ramifications of the bronchia, as well as of the bronchial arteries and pulmonic plexus of nerves, accompany each other into the substance of the lungs, where the two latter every where perforate the former, to be dispersed on their internal membrane: hence, the mucous fluid is secreted, with which the bronchial tubes are so plentifully supplied. By the same means, also, a serous vapour is inhaled into the cellular structure of the lungs.

The calorie which is generated as a consequence of these processes, augments the temperature of the blood which passes from the heart through the pulmonary ramifications; from this, water is separated, and carried off by the exhalents in the form of vapour, in the same manner as steam is raised from water in the process of distillation.

The last product of nervous and arterial actions which remains unnoticed is the living solid, for, as the body is constantly going to decay, and as constantly renewing, it is evident that a process for regeneration must be uniformly kept up. To bring this subject within the limits of observation, I will take, as an example, the history of the healing process of a lacerated wound, which, I will suppose, is extensive, and situated in a fleshy part of the body. The first object of the surgeon is to stop the effusion of blood, and, with this view, he keeps the edges of the wound in approximation. After the lapse of a short time (sooner or later, according to the extent of the injury and the loss of blood), the living principle begins to excite the action of the nervous and arterial branches which are contiguous to the wound; this is apparently occasioned by the irritation produced in the part, by the unnatural division or laceration of the nervous extremities; but its object is to bring about the healing process, and it is contrary to reason to suppose that a hurtful agent can of itself be the parent of a salutary effect. This increased action between the nerves and arteries contiguous to the wound, proportionably increases the temperature of the part, which sometimes is so inordinate as to require the application of evaporating lotions. In this preliminary process for regeneration, nature has three objects in view: 1st, by an increase of nervous stimuli, to contract the artificial

artificial mouths of the vessels which open into the wound, and thus fit them for a secretory process; 2dly, to form new vessels by an elongation of the vasa vasorum; and 3dly, to excite the action of the absorbents, for the purpose of removing the coagulated blood from the artificial mouths of the vessels, which, in the first instance, was the principal means of preventing a further effusion of their contents. Thus furnished with materials, a wounded surface becomes exactly analogous to a secreting organ; the throbbing pain and heat consequent on preternatural nervous and arterial action, either ceases, or becomes considerably moderated; and, if no other local cause be present to prevent it, the process of regeneration, or the formation of part upon part, immediately begins.

The coagulating gluten which is separated from the blood as the product of this process, possesses, when first secreted, no other requisite for organization than the living principle; and if, by the wrong application of art, this matter be produced in greater quantities than nature can immediately organise, it soon loses its vitality, and is thrown off from the part in the form of a slough. On the other hand, if every thing go on well, the effused lymph is supplied with a greater quantity of arteries and nerves than are necessary for its mere support, healthy granulations being extremely vascular, and highly sensitive to the touch. Thus prepared, the new living part becomes in its turn the medium of a similar process, and thus the wound is at length filled up by repeated layers of organized lymph. The process of regeneration, then, is precisely the same as that necessary for secretion; a living solid, as well as the secreted fluids, being the product of an action between the nervous and arterial extremities; and, as I am firmly of opinion that this is an established law of nature, from which she never deviates without completely overstepping her usual course, so I cannot but be convinced of the improbability that blood, when coagulated and dead, should again become alive, and be ultimately organized.

I am well aware that the hypothesis which I have endeavoured to support can only receive the sanction of those who believe that nervous energy is analogous to galvanism; and, resting my defence on that analogy, the chief of what I contend for may be comprised in a few words, namely, that decomposition and heat must be the natural product of an action between nervous energy and the blood.

Clifton, Bristol. C. W. SMERDON.

For

For the Medical and Physical Journal.

Some Particulars of the Case of Ann Ferry, with the Appearances on Dissection; by Mr. T. Bryant.

ANN FERRY, the daughter of a weaver resident in Spitalfields, became, at the age of fifteen months, the subject of hooping cough, which continued four months, then leaving her in a state of convalescence. At this period her parents observed a degree of fatuity, which had not previously been apparent. When eleven years of age, she had the power of voluntarily ejecting the contents of the stomach; this, in a few months, became accompanied with cough, dyspnœa, emaciation, &c. which continued to increase rapidly until her dissolution on the 17th of Feb. last.

Dissection.—Between the dura mater and tunica arachnoidea, there was at least ʒiij. of a yellow-coloured fluid. The vessels of the pia mater were particularly turgid; and a number of patches of coagulable lymph were observable on the surface of the cerebrum. The right lateral ventricle contained half an ounce of the same coloured fluid as that found between the membranes. The left lateral ventricle contained ʒij. These were all the morbid appearances in the head.—The thorax was next examined. The lungs were found extensively tuberculated, with adhesions of the pleura pulmonalis to the pleura costalis.—The contents of the abdomen were next observed. The stomach was found to be very much contracted, with very evident increased muscularity of the pylorus. A considerable quantity of coagulable lymph on the surface of the small intestines. The pancreas remarkably enlarged and indurated, feeling like cartilage between the fingers.

The above is a correct statement of the different appearances exhibited on dissection; but the history of the case is necessarily limited, not having had the advantage of acquiring knowledge of it by attendance during the indisposition of the child, but only by inquiry, through the medium of her friends, after death.

Walworth Common, Surry. THOMAS BRYANT.

For the Medical and Physical Journal.

Remarks on the Efficacy of Cold Affusion in Typhus and Scarlet Fever; by Mr. Thomas Lodge, Surgeon, Preston, Lancashire.

WHEN I reflect on the great mortality from *typhus* and *scarlatina*, and call to my recollection the methods of treatment generally employed in those fevers, at least in this

this large and populous county, I cannot refrain from attributing the failure of the treatment, in the majority of the fatal cases, to the omission of that invaluable (I had nearly said specific) remedy the *cold affusion*, which, I am sorry to observe, is by no means generally employed, much less recommended, by medical practitioners. During the last three years, I have had an opportunity of witnessing its happy effects in some hundreds of cases of typhus and scarlatina, and I trust your intelligent readers, especially those who have perused Dr. Currie's invaluable book on the subject, will give me credit when I say, that I never witnessed a single instance of death from either of the fevers in question, when the affusion, employed in the manner recommended by Dr. Currie, had not been postponed beyond the 3d day of the attack: nay, if used at a latter period, viz. from the 5th to the 9th day, it will generally, I have observed, render the symptoms milder, and occasionally cut short the disease. Hence, I conceive, that if a medical practitioner be consulted in a case of incipient typhus or scarlatina, and he omit to recommend the cold affusion, he has not done the patient justice; he has not done his duty; because he has neglected to recommend the remedy which, of all others, would have been most likely to have cured his patient.

Sponging the body with vinegar has been recommended by Dr. Currie and others, in typhus and scarlatina. However, I feel it my duty to state, that, in the cases where I have had an opportunity of seeing it employed, it invariably appeared to me to do harm. In a few minutes after its employment, the patient feels stiff and uncomfortable, from the mucilaginous matter contained in the vinegar clogging up the pores of the skin, and thereby preventing evaporation; on which principle, probably, the extraordinary efficacy of the effusion and sponging with cold water in a great measure depend.

April 6, 1815. THOMAS LODGE.

For the Medical and Physical Journal.

Two Cases of Ruptured Uterus; communicated by J. G. COFFIN, M.D.

MARCH, 1809.—Mrs. A. aged thirty-five years, a domestic in the family of Mr. F. was taken in labour. This woman had borne several children before without any unusual occurrence, and had been as well as is common, for her state, till the night of the 12th instant, when her travail began. The membranes had given way, and the waters

were discharged in the night: after being for some time wet, she went at day-light from a lower to an upper apartment.

It was some hours before she could be made comfortably warm after great chilliness. I saw her at eight o'clock in the morning, when her pains were pretty frequent and severe. On examination, I could merely feel the head of the child just entering the pelvis. The contractions of the uterus, &c. continued with considerable regularity till half-after twelve, when the head had advanced to within one or two inches of the os externum.

About this time, after several pains, attended with great distress and uneasiness, the efforts of the system suddenly abated; the patient became cold, pale, and covered with sweat.

She now complained of a new kind of pain and insupportable distress about the navel, a little to the left side. These symptoms continued with unceasing severity for two hours, when she expired, before which the head had retracted some inches.

Before this accident, the bowels had been evacuated by the use of enemas. At one time I contemplated taking blood from the arm, but, as the pulse did not seem to indicate this measure, bleeding was omitted.

Immediately after the accident, every means was used to support the declining temperature and strength of the patient, and to lessen her suffering, but without any success.

The next forenoon the body was examined by Dr. J. C. Warren, who has favoured me with the following minutes of the dissection.

The appearances on the examination of the body of Mrs. —— were, as far as I can remember, the following:

The external appearance of the abdomen was irregular, from the existence of a large protuberance in the central portion of it, which was supposed to be the head of the child.

When the abdominal parietes were removed so as to lay bare the peritoneum, a dark substance was seen through the transparent membrane, on puncturing which, fluid blood was discharged from the cavity of the abdomen in great quantity. The uterus, being exposed, was found contracted to half the size it should be before delivery. Behind it lay the head of the child, which had been forced through the posterior and inferior portion of the uterus, at that part where it joins with the vagina. The placenta was also expelled into the cavity of the abdomen. The substance of the uterus, around the lacerated part, was thin, tender, and of a very dark colour. All the cellular membrane of the lower portion of the uterus was filled with blood, as well as that

which

which was connected with it, in every direction. The breech of the child lay in the fundus of the uterus, and constituted the tumour felt externally.

Second Case.—August 16, 1812.—I saw Mrs. B. this afternoon at three o'clock, and was informed that the waters of the uterus had been recently discharged. The contractions of this organ were neither considerable nor frequent; at night her pains had gradually increased. At this time I found the os uteri pretty largely dilated, and, as I supposed, the head of the fœtus advancing, which at ten P. M. had descended to within one and a half or two inches of the os externum.

So far the progress of this labour had been slow and tedious, and the sufferings of the patient seemed to be beyond the usual degree, compared with the expulsive force of the pains. Before the hour just mentioned, I had taken a pint of blood from the arm of Mrs. B. who was a very large woman, and of a plethoric habit. Her body had been opened by injections. Soon after ten she complained of severe distress of the abdomen, accompanied with uterine hæmorrhage and sick stomach. The pains abated, and the head receded almost beyond the reach of the finger.

She vomited several times; was restless, and in great distress. In this deplorable state, apprehending the accident which had happened, I could only desire her to remain as still as possible, (for her sufferings had led her to an almost incessant change of position,) and have recourse to an anodyne.

After taking fifty drops of tincture of opium several times, she was somewhat relieved; and at four o'clock A. M. she seemed inclined to sleep. From an engagement to leave town, I was now obliged to leave the patient in the care of Dr. Gorham, who has obligingly furnished me with the following notes of the termination of the case, and of the examination of the dead body.

"August 17.—8, A. M. Was called to Mrs. B. She was sitting in an easy chair. Her respiration was somewhat hurried and laborious; the pulse was about 100, moderately full and hard; the abdomen was very tense and painful, and she complained of great thirst and flatulence. Mrs. B. had no parturient pains since Dr. C. had left her; but at 3 o'clock there had taken place a discharge of a small quantity of blood per vaginam, and another at 7 o'clock.

Examined with the hand in the vagina once two fingers in the uterus, but could feel nothing of the child.

11, A. M. Her situation is nearly the same as in the last

report. She feels the pressure of the child high up on the right side, and cannot lie on that side. Ordered a purgative.

Having no doubt, from the history of her case, that a rupture of the uterus had taken place, I proposed a consultation, which, from unavoidable circumstances, could not be held before 3 P. M. when, in the presence of Drs. Warren and Hayward, I passed my hand into the uterus, and moved it in various directions, meeting with no other obstructions than those arising from the sides of the organ itself, and the placenta, which was completely detached. On the posterior part of the uterus, about half way between the fundus and the neck, I perceived a longitudinal fissure, through which I passed two of my fingers into the abdomen. The same circumstances were noticed by an examination by the gentlemen who were present, and they were perfectly satisfied that a rupture of the uterus had taken place, through which the child had been forced into the abdomen. As Mrs. B. had not felt any motion in the child for twelve or fourteen hours, and as its extraction could not save its life, while, from the contracted state of the uterus, it might have proved speedily fatal to the mother, it was thought best not to attempt it. She was ordered to have an enema and anodynes.

11 P. M. Has had one copious alvine evacuation; has vomited matters of a coffee-ground appearance; bowels tense and painful; profuse sweat; pulse frequent, but firm; has been very faint.

August 13.—8 A. M. Has had no sleep; vomits continually a blackish fluid; profuse sweat, pulse very quick, thirst excessive, abdomen very tense, great dyspnœa; countenance pale and distressed; is very feeble.

8 P. P. Vomits incessantly a very dark green-coloured fluid, with flocculi of a coffee-ground appearance; pulse 115, moderately firm. Other symptoms the same as in the preceding report.

August 19.—6 A. M. Delirium; vomiting; fluttering pulse; respiration suspirious; cold sweat; in which state she continued until eleven o'clock, when she died.

Appearances on Examining the Body at 4 P. M.

External Appearances.—Abdomen immensely large and tense, measuring more than a yard from one groin to the other; slight discolouration about the inferior parts; on puncturing, a large quantity of very fetid air rushed out.

When the integuments, which were more than two inches thick, were divided, and the flap was laid over the pubes, the child came into view, its back presenting and lying among the intestines, which appeared to be cemented together by

thick

thick coagula of blood. Its head was firmly pressed under the right lobe of the liver, the left hand embracing the left foot, rested in the right iliac region; its body passed diagonally across the abdomen, the right foot being pressed against the left ileum, and the right arm forming a line with the body. The child, which was a male, was putrid, and much swelled, the cuticle separating when it was handled. When it was removed, the umbilical cord was traced to the placenta, which was found in the cavity of the abdomen, nearly at the posterior part of the uterus. The uterus itself was much contracted; its substance was very firm, and about two inches in thickness. On its posterior portion a longitudinal fissure was discovered, sufficiently large to admit three fingers; its cavity was small, but the fingers introduced per vaginam could be readily passed through the ruptured part into the abdomen. The intestines and peritoneum were highly inflamed, and there was a considerable quantity of very fetid reddish-coloured liquid in the abdomen.

J. GORHAM."

Remarks.—Notwithstanding the diversity of opinion among accoucheurs respecting the Cæsarian operation, the following propositions seem to be sufficiently established, namely:

1st. That the operation in itself is not essentially mortal.

2d. That there are certain cases in midwifery wherein the life of the mother, of the child, or of both, depends on the removal of the contents of the gravid uterus; and

3d. That in some of these cases, this operation is the only means by which the patient can be delivered.

4th. There have been, and may again be, cases in which this operation has saved the life of the mother, of the child, or of both.

If these propositions be admitted to be true, it follows that the operation is occasionally not only proper, but also of indispensable importance.

It has been objected to the Cæsarian section, (and gastrotomy, for I include both operations, if they are to be considered as two,) that it is a hazardous operation, that it may be badly or unnecessarily performed, &c. All this is doubtless true, but these objections exist in equal force, if any, against all the higher, more difficult, and important operations in surgery. If a limb were never to be amputated, nor a stone nor a tumour to be removed, till a fortunate issue could be *certainly* foreseen, the surgeon would become a much less valuable member of society than he now is.

The truth of the second proposition, it is presumed, will be granted by all.

The third proposition is true in those instances of deformed pelvis, diseased vagina, and ruptured uteri, in which, from the circumstances of any of these cases, delivery through the natural passage is impossible. The last proposition is confirmed by the authentic record of many cases in which this operation has been practised with success. No reasonable objection against this resource of art can be raised from the fact that it sometimes fails, because we know it has succeeded and may again succeed in similar cases; and these successful instances may fairly be supposed to be such, as admitted of no other possible chance of saving life.

From these views of the subject, it is extremely difficult to perceive any rational foundation for the unqualified rejection of the practice in question, by Messrs. Sacombe and Simmons, or any one else. So far from agreeing with these gentlemen, I should say that this operation is not duly estimated, particularly in this country, where I cannot learn that it has ever been performed. The hour of sudden danger, painful apprehension, and alarm, is not the proper season for discussing and deciding on questions of serious import and great responsibility.

Hence the necessity that practitioners of midwifery should deliberately make up their judgment as nearly as may be, before they are called on *to act*, in what cases and under what circumstances it is requisite to have recourse to this expedient, and to be prepared to discharge their duty accordingly.

Every student of surgery should, as far as possible, familiarize his mind and his hand to the operation, under the impression that he may be required, in the course of his professional duties, not only to determine on the propriety or impropriety of this measure, where life is at stake, but also to do the operation.

How many lives have been lost from the neglect of this means of relief, we can never know; but from the limited extent to which it has been carried, and its comparative success when tried, there is no doubt in my mind that this loss has been extensive.

Nor can I hesitate to believe, that the obstetric art would be *improved*, if in all civilized communities, there should be, for the time to come, in every town or neighbourhood, one person duly qualified to decide in what cases it might be proper to adopt this expedient, and to perform the operation. It is not to be supposed that the practitioner, who has never been convinced that this operation may sometimes be necessary, who has never performed it on the dead subject, nor seen it done on the living, can be disposed and prepared to

try

try it, if a case should occur in which it might be unequivocally indicated.

Nor can we imagine that an individual acquainted with the operation, with a case before him in his opinion requiring it, who should recollect that it had never been done in his vicinity or country, and that all the medical men about him were opposed to it, under these discouraging circumstances should possess sufficient fortitude and regard to principle, voluntarily to encounter all the responsibility and unpleasant consequences which a discharge of his duty would be likely to involve.

Mrs. B., whose misfortune has occasioned these remarks, lived two days and a half after the rupture of the uterus took place; and the fœtus and its appendages had all escaped from this organ into the abdomen.

Supposing the fœtus, &c. to have been expelled from the uterus at the time of its division, or immediately after, as is probable, and that they had all been reasonably removed from the abdomen, by gastrotomy, is it not more probable that the patient would have survived the accident and operation, than that she should have lived sixty hours in the condition she did? It is possible, too, that the life of the child might have been preserved by a timely resort to the operation.—*New-England Journal.*

For the Medical and Physical Journal.

On the Effects of Temperature in Consumptive Disorders, in Answer to Dr. Sutton's Objections; by Dr. BUXTON.

I LATELY published some letters in the Monthly Magazine, the object of which was, to shew the ground that existed for the establishment of an Infirmary for Diseases of the Lungs. On these letters Dr. Sutton, in your Number for March, has made some remarks, to which I think it requisite to reply. The doctor commences by noticing the agreement which subsists between the Eclectic reviewer of Dr. Southey's late publication on Consumption and myself. Dr. Sutton appears to insinuate, though he does not openly express this opinion, that friendship had in some degree biassed the review. It certainly must be gratifying to my mind to observe a person of ability and knowledge supporting the same sentiments as I have maintained. The reviewer is evidently a man who thinks for himself. If similarity of opinions on most of the points under consideration will be sufficient to constitute a friendship between two individuals, then undoubtedly he is my friend. But further than

than this, I do not know that he is so. In point of fact, I believe that I am totally unacquainted with this gentleman. Friendship, therefore, to myself, could have had no share in the guidance of his pen.

In my letter to the Monthly Magazine, the following are the points which I endeavoured to establish.

1. That asthma and consumption are very rare in hot climates.

2. That asthma is rare, but consumption not unfrequent, in mild climates.

3. That they are both very prevalent in this country, the climate of which is cold and variable.

4. That in this country they are much more frequent in winter than in summer.

5. That they have often been cured or relieved by the assistance of a high temperature (i. e. of about 65°) preserved in chambers during winter.

To support my first position, I have quoted a number of authors who have written on the diseases of tropical climates. Neither Chisholm, Hillary, Winterbottom, Curtis, Johnson, Mosely, nor Lind, speak of consumption or asthma as occurring in these latitudes. Lempriere gives tables of the deaths by different diseases in Jamaica, from which it appears, that one in twenty-seven died of consumption. He likewise mentions a single case of death from asthma.

Of the authorities to support the second position, Cleghorn and Townsend do not mention either of these disorders. Pomeier speaks of them as occurring rarely. Neither Gourlay nor Irvine mention asthma; but both of them allude to consumption as not unfrequent.

Their frequency in England is proved by reference to different lists of diseases. Their fatality is shewn by the bills of mortality, confirmed by the registers of Gorsuch and Haygarth. The bills of mortality give between one-third and one-fourth of those who die, as destroyed by these complaints; the two gentlemen make the proportion to be between one-fourth and one-fifth.

Their greater frequency in winter than in summer was shewn by a reference to a register kept by myself, and to another given by Dr. Bateman in the Ed. Med. and Surg. Journal; by each of which it appears, that the cases of asthma and consumption are double in winter what they are in summer.

The benefit of a high temperature was evinced by the narration of nine unselected cases, where this remedy was used. Several of these individuals were cured of their complaints,

plaints, and all, without exception, though some had been excessively ill, were considerably benefited.

I have thought it necessary to give this abstract of my arguments, to prove the utility of the practice in question, because the greater part of your readers will not have seen the original letters in the Monthly Magazine; but, until they have read this abstract, will judge of them through the medium only of Dr. Sutton's objections.

In the positions which I have endeavoured to establish, each article relates to asthma as well as to consumption; and the Infirmary for Diseases of the Lungs is open particularly to both these complaints. To the propriety of using a temperature of 65° during winter for asthma, Dr. Sutton makes no objection. I must consider that he was silent, because he had nothing to advance in opposition to this plan; and, therefore, that his silence is a tacit acknowledgment of the excellence of the remedy in question. Taking this, therefore, for granted, I shall say nothing more respecting asthma in the present letter.

With regard to consumption, Dr. Sutton has not attempted to controvert any of the positions above laid down; but has objected to some particular statements, and by arguments of a different nature has endeavoured to invalidate my conclusions. In answering the arguments of Dr. S. I find some difficulties, arising from different circumstances.

1. Although Dr. Sutton objects to my opinion of the causes why consumption occurs so frequently in England and in countries of a temperature nearly similar; yet he does not attempt to give his own explanation of this occurrence. From want, therefore, of accurately knowing his sentiments, I am in danger of misrepresenting them.

2. Although he has objected to the temperature which I have proposed, as in general most adapted to consumptive patients; yet he has not directly proposed in this paper any other which he considers more favourable. That he would employ a lower temperature than I have recommended, is evident, from the two cases he has related; but the exact degree, and whether it should be fixed or variable, he has left to conjecture.

3. Although the doctor proposes to follow a natural order, I find it rather difficult to discover that order; his remarks (excepting in the two first pages of the paper) appearing to be set down as they entered into the doctor's mind.

I shall endeavour to reduce what Dr. Sutton has said to separate heads, and shall answer each distinctly.

1. His first objection appears to me to be, that, although consumption occurs in England more frequently in winter than

in summer, yet, as it is not nearly so prevalent in the northern cold climates as it is in England, that this frequency of occurrence depends not on the severity of the weather, but on its greater variableness during the cold than during the hot season. He particularly instances Denmark, Sweden, Russia, Holland, and Canada.

I have not leisure at this moment to examine the different authors who have written respecting the cold climates; but, as Dr. Southey (of whom Dr. Sutton speaks at the commencement of his remarks) has given a short statement relative to these countries, I shall refer to his work for an account of them.

Perhaps I may rather favour Dr. Sutton's argument, by correcting his mistake with regard to the situation of Holland. It is not more to the northward than England. The accounts respecting the prevalence of consumption in that country are given differently by different authors. Dr. Cogan states the complaint to be very rare. Finke, on the contrary, mentions this disease as causing between one-fourth and one-fifth of the deaths at the Hague and at Bergen-op-Zoom. Where testimonies are so different, which are we to follow? Dr. Sutton chuses to follow Dr. Cogan alone. If it is really fact that consumption is of rare occurrence in Holland, this must proceed from some peculiar cause, and must be considered as an exception to a general rule, the other countries both of Europe and America, which are placed in nearly the same temperature as England, being nearly or quite as liable to consumption as our island. With respect to Canada, Walsh does not advert to consumption, whilst Hearne speaks of it as being very frequent among the northern Indians. Dr. Sutton thinks it right to abide by the former of these writers, whilst he entirely neglects the latter.

In considering the effect of climate on diseases in tropical and in the milder countries, we have little else to do than to observe the changes of the atmosphere, and to note the diseases; because the inhabitants of those countries are much in the open air, and because their habitations are neither closed, nor warmed by fires. But, in the colder countries, other circumstances are to be taken in the account besides the temperature of the external air. The Russian climate is far more severe than ours. But it is to be recollected that the Russian rooms are preserved at a constant high temperature, so that, although the natives wear a large quantity of cloaths when exposed to the cold external air, when within doors they throw off nearly the whole. To this temperature, then, the Russian women and children are generally subjected

jected throughout the winter; and even those men who go out to work during the day, still are preserved in this hot-house warmth during the night. Here, then, is much more than half the population of the country constantly in a summer equable temperature in the midst of winter. But, should any individual of those who are much exposed to the air be taken ill with consumption, the moment he is so disordered as to cease from work, that moment he will constantly breathe an atmosphere thus warmed. This application of heat to the healthy and to the diseased, will surely modify the diseases of the country.

Dr. Sutton acknowledges "that consumption commences and prevails most in the severe season of the year in this country." But, conceiving he had completely proved that severity, either alone, or conjoined with variableness, could not be concerned in producing consumption, he endeavours to attribute this greater frequency to variableness of climate alone during the "colder seasons, because the temperature then varies more than in the other parts of the year." Unfortunately, Dr. S.'s assertion is not consistent with fact. The temperature generally varies more in this country during summer than during winter. I examined the register of the weather kept by Cary for 1814, and recorded in Tilloch's Philosophical Magazine. In January, the difference between the highest and lowest points of the thermometer was 26°; in February, 30°; in July, 21°; in August, 26°. The average difference between the highest and lowest points in twenty-four hours was, in January, 5½°; in February, 10°; in July, 11°; in August, 12°. Hence, if the prevalence of consumption depended on the variableness of climate alone, that disease ought to prevail most in summer. But, as it actually occurs most in winter, I think I am justified in the conclusion that the severity then experienced, joined to variableness of temperature, may be considered as producing this difference. Supposing it could be proved that all persons exposed to the rigours of a Russian winter were less liable to consumption than if exposed to an English one, it might shew that consumption, like the plague, required for its greatest prevalence a certain temperature; and that the temperature of the Russian winter was too low, while that of an English winter favoured its production in the greatest degree.

II. Dr. Sutton's next objection appears to be, that consumption is of frequent occurrence in mild climates, and, therefore, that if we argue from the prevalence of this disorder in particular latitudes, a warm temperature cannot be

beneficial in cases of this kind. In proof of this, he says, (p. 204) "Next to our own country, France and the south of Europe seem to be the regions most visited by this disease." This statement is very incorrect. Next to our own country, those parts of Europe and America whose temperature is nearly similar to that of England, are subject to this scourge. In proceeding towards the equator, the milder countries have the next place; and, lastly, those within the tropics, where this disease prevails least. Respecting the mild climates, Dr. S. dwells much on what is said by Irvine and Gourlay relative to Sicily and Madeira, these authors having spoken of consumption as of frequent occurrence in those countries, whilst he does not mention Cleghorn, who entirely omits consumption when describing the diseases of Minorca, or Domeier, who considers consumption as of rare occurrence in Malta. But, taking Irvine and Gourlay as the standards, whoever, with an unbiassed mind, reads their respective publications, will find consumption spoken of as if it occurred much more frequently than in the tropical countries, but not nearly so often as in our island. These authors not having given us comparative lists of diseases, we can only judge of the frequency and fatality of any complaint by the general manner in which it is spoken of. If a foreigner were describing the disorders of England, he surely would place consumption in a most prominent point of view. But neither Irvine nor Gourlay do so respecting this complaint. They both treat of several disorders before speaking of consumption; and Irvine describes the summer and autumn, the latter particularly, as the most fatal periods of the year in Sicily, because then the most destructive fevers abound. Each of these authors, likewise, describes the country of which he is treating, in distinct and unequivocal terms, as much more favourable to consumptive patients than England. Their testimony on this head Dr. S. passes over in silence.

In this part of his paper, Dr. S. endeavours to prove that my statement of the rarity of consumption in tropical countries is incorrect, by observing (p. 204), that, "respecting Jamaica, the most clear and authentic account on this subject contradicts the vague representations of others, and the doctor (Buxton) is pleased to find, as a solution of the cause of more consumption being found to prevail in that island, that it varies more in the degrees of temperature than any other in the West Indies. He makes the like remark respecting Sicily." This is rather an easy way of cutting the knot. A Hillary, a Lind, a Johnson, &c. are vague and deficient

ficient in clearness and authenticity; and, therefore, their testimony is to be disregarded! Dr. Sutton ought to give rather more proof of their deficiencies than his bare assertion, before he sets their testimony aside. But, resting the question on Lempriere's statement, we shall find that one in twenty-seven deaths in Jamaica is caused by consumption. Supposing this to be the ratio in tropical climates, I should, I think, be correct in my assertion, that consumption is there a rare disease. But, if this complaint occurs more frequently in Jamaica than in other West India islands, and if this is the reason why it is mentioned by Lempriere, who wrote on Jamaica, and not by other authors, who wrote respecting other islands, is my conjecture improbable that this frequency depends on the greater variableness of its temperature? Dr. S., at the conclusion of p. 203, asserts variableness of temperature to be a cause of consumption; and he has not attempted to deny that Jamaica and Sicily are more variable in their temperature than most other countries in their respective latitudes. Yet, while he cannot controvert the facts, he attempts by a sneer to get rid of the conclusion, or rather conjecture, grounded on these facts. If Dr. S. could shew the falsehood either of the facts or of the conjecture, he would do much more to establish his point.

III. Dr. S.'s next argument is in the form of a question (p. 205): "Do patients more frequently recover from this disease in any certain climate?" He then shews that invalids frequently die of this disease in Madeira and Sicily; a circumstance never controverted. Yet even here, in quoting Dr. Gourlay, he makes Dr. G. express himself more strongly than he actually did. In saying, "that whole families in this island are swept away by it," (i. e. consumption,) he forgets the qualifying words "*at times*," employed by Dr. G. I hope, under another head, to shew that patients do recover more frequently from this complaint in certain climates, and to that head I refer the reader.

IV. Another argument brought forward by Dr. S. is, that, although cold and variable weather may operate, with other occasional causes, to produce consumption, this is not sufficient to shew that an opposite condition of temperature should be adopted in the treatment of the disease. I have no where asserted, that from the cause we may safely argue immediately to the treatment. As a general maxim, this mode of argument would be fallacious; yet it frequently holds good, and this especially in diseases which prevail chiefly in certain regions. Thus, hepatic affections are induced and supported by heat of climate, and frequently cannot be cured till the patient is removed to a colder country.

try. Ague is continued in consequence of the presence of the miasmata, by which it was first generated, and frequently requires removal to a different place in order to its cure. And it appears by no means improbable, that the same kind of weather which generates consumption also tends to hinder its cure. Those, however, who read either the letters in the Monthly Magazine, or the present answer to Dr. Sutton, will easily perceive, that, although this may assist as a collateral argument, or as introductory to others, I rest the force of the controversy on direct and positive arguments.

Here it is necessary that I should rectify a mistake of Dr. Sutton's, where he supposes that I have advanced (p. 206) "a sort of refutation of an opinion that he had given. He refers to his intimation that a certain humidity of atmosphere is desirable to the consumptive, &c." I had no intention of refuting the doctor's opinion. The evidences which I possess on this subject are not sufficient to enable me as yet to form a decided judgment. In my letters, I endeavoured to collect a number of authorities, and thence I deduced some remarks, striving not to offer any remark besides what I conceived to be actually contained in my authorities. In the close of my first letter, speaking of the tropical countries, I said, "Whether the countries are moist or dry, marshy or the contrary, consumption and asthma appear to be equally rare." Although Dr. Sutton objects to this remark, he does not, with respect to regions within the tropics, attempt to contradict the assertion; I suppose because he was unable to do so. He speaks, however, of several examples in this island, which he conceives to be in point, but against some of which, I think, just objections might be adduced. However, as I am not here contending for a contrary opinion, I shall pass them by without remark. The Sirocco or south-east wind, which Dr. Sutton quotes as dry (p. 207), Irvine and Domeier speak of as being moist.

V. Dr. S. asserts, that the removal of patients to a warm climate, while labouring under consumption, has been attended with considerable detriment; and

VI. That the application of a cold temperature has been attended with benefit.

I place these arguments together, because they are so connected that it is scarcely possible to separate them. As these are points on which the main stress of the controversy must necessarily depend, it is requisite that they should be examined with some attention. On this head, Dr. S. brings forward a letter from Dr. Gladstone, a friend of his, who had served in the Mediterranean. It appears, from his account, that nine men, labouring under consumptive habits, were embarked

embarked in England on-board his ship for the benefit of the Mediterranean climate, and others, having a tendency to these complaints, were retained on-board for the same reason." Unfortunately, Dr. G. has not mentioned the time when they arrived in the Mediterranean; but he speaks of these men as being exposed to the Sirocco, which wind, Dr. Domeier tells us, blows chiefly in September. It is, therefore, reasonable to suppose, that they arrived about the latter end of summer or beginning of autumn, perhaps nearly the worst time at which they could arrive, on account of the intense heat to which their exhausted frames would thus be exposed. Three of these nine died during one day's dry wind. (By this he means the Sirocco or south-east.) The other six were sent to Malta, to be invalided for a northern climate. Whoever has had an opportunity of seeing sailors who have been dismissed from a ship for consumptive complaints, must be fully aware that very few of these men long survive. As long as they are capable of work, they will be retained; but frequently a man will be able to do some duty long after consumption has commenced. I have seen many of these invalids both under my own care and under that of others, and have found that they almost universally died. That several of the men sent to the Mediterranean in Dr. Gladstone's ship, must have been in the last stage of the disease, is evident, from three of them having died in one day in consequence of the Sirocco. This wind is universally allowed to be excessively hot. No wonder that persons nearly worn out by disease should sink under its debilitating effects. At the end of almost any other complaint, where an equal degree of weakness had been induced, the same effect would follow from the same cause, and for a similar reason—the excessive exhaustion produced by the heat, independently of any pernicious effect which this wind might be supposed to have on the lungs. Whether the remaining six, who were sent to Malta, recovered or died, we are not told. It is not mentioned that any of the men who had a tendency to consumption, suffered in any respect from the climate. With the opinion which Dr. G. entertains, if they had become worse, they likewise would most probably have been sent to Malta. This may, perhaps, be considered as tending to shew that the climate agreed with them. The circumstances here adverted to, exactly accord with what I have observed in England. Persons in the last stage of consumption will be exhausted by sultry hot weather, in a very short space, while those who are in the incipient stage of the disorder generally suffer little, if any thing, at the same period. Dr. G. then mentions the case of an officer in consumption,

consumption, who went to Constantinople during the winter, and there recovered. The winter is just the time when a warm climate is likely to prove beneficial. But surely this case does not oppose my opinions. Whilst at Constantinople, this gentleman would breathe in a temperature widely different from that of an English winter.

To shew the benefits of the application of cold, Dr. S. has selected two cases. Dean, the first of these, will not, I think, prove much in favour of the doctor's opinion. This man was very ill in December, 1813, and in the course of the month became worse; lingered in nearly the same state upwards of two months, i. e. to the end of February, 1814, and in another month, or at the end of March, was much improved in every respect. By adverting to a register of the weather, it will be found that it was severe from the latter end of December to the 20th of March, with the exception of a short period in February. On the 20th of March, the weather became warm, and continued so afterwards. This man appears to have followed the usual routine of what is frequently observed in complaints of the chest. During nearly three months, while the weather continued severe, "his disease appeared to vary in no considerable degree." But at the latter end of March, when the weather became warm, he "improved in every respect." If a low temperature was as beneficial as Dr. Sutton would have us believe it, this man ought to have profited somewhat in more than two months' application of this salutary agent. Yet his complaint did not vary. And if warmth of temperature were so very prejudicial, even though he had become better during the cold weather, it might have been expected, that the pernicious agent (warm temperature) would have produced a baneful effect on him. This, however, did not ensue. On the contrary, under its application, he "improved in every respect."

In the other case mentioned by Dr. Sutton, the medical gentleman to whom he refers, appears to have been ill for some time with pulmonic disease; but, at the time Dr. S. saw him, to have had a vomica burst in his lungs, or an attack, somewhat acute, on an organ previously much disordered. The account given by the doctor is not sufficiently detailed to enable me to judge which of these conjectures is most consistent with his actual state. In either case the disease would run through a certain course before the patient could become better, particularly if a vomica had burst. In this condition, he is stated to have exposed himself during the day to a strong fire in a warm room, while during the night he was in a chamber which neither had a fire nor a ray of the

the sun throughout the twenty-four hours, and consequently is described as having been cold. Can it be wondered at, that exposing himself to such vicissitudes he should become worse? in despair, he took to his chamber, where he "gradually got better" under a temperature of about 45°. Here, at least, the temperature was nearly equable. But the patient's amelioration was not a recovery, it was only such as to bring him back to the state in which he was previously to this attack.

I shall now endeavour to prove, that warmth of temperature is generally beneficial, and coldness of temperature hurtful in the cases now under consideration.

In my letters to the Monthly Magazine I have given the unselected cases of nine patients labouring under pulmonic disease, who were kept in a chamber warmed to about 65° during a portion of the winter, and this with decided benefit. I could cite the instances of individuals, who, in incipient phthisis, received the most marked advantage from going during winter to a warm climate. I could likewise quote the cases of several persons in nearly similar circumstances, who evidently fluctuated with the change of weather in winter, being relieved by mild and injured by severe temperature. But, that I may not swell this article to an enormous length, I pass these by to notice two strong authorities, and the grand experiment which is made every year in this country by the alternate recurrence of summer and winter. Single cases, particularly if selected for an individual purpose, will often deceive us. But experiments made on a scale like this, if accurately tried, scarcely can fail.

The testimony of Dr. Gourlay and Dr. Irvine is very decided respecting the beneficial effects of a removal from the cold of England to those comparatively warm climates on which they wrote. The former asserts (p. 90) that Madeira is "highly beneficial in consumption with the natives of other countries," evidently referring chiefly to the natives of England, the country from which he came, and in which he published his book. Dr. Irvine, in speaking of Sicily, (p. 93,) says, "I have seen the progress of many cases of phthisis arrested, and many men recover, for a time at least, a perfect state of health, who would, in all probability, have died in England." And (p. 99) "The phthisical invalid will find the Sicilian climate, if not the best in the world, at least greatly more congenial to his frame than the fogs and rains of England." To the testimony of these men, I think Dr. Sutton cannot object, since he can place the greatest confidence in them on other occasions, where he conceives that they favour his opinions. And, it appears to me, that,

let Dr. Gladstone's letter have what weight it may, their assertions will more than abundantly counterbalance it.

I shall now appeal to the changes produced in the consumptive during the alternations of summer and winter. Consumption is a disease which rarely destroys its victim in less than three months, and frequently it continues a much longer space of time. During January and February the number of patients labouring under consumptive complaints and registered in the lists of medical practitioners is considerable, much more considerable than in the hot months of July and August. If warm weather were hurtful in this complaint, it is to be expected that as the summer advanced those patients whose disorders commenced in the winter would become worse, and, probably, would be exhausted and die in the hot months of July and August; but we *find*, in point of fact, that the number of deaths by consumption in these months is very much smaller than in the cold months of January and February; while, at the same time, the converse of this is equally true, that, though the number of consumptive cases under medical treatment is smaller in July and August, the number of deaths is much the greatest in January and February. In short, as the warm weather commences and continues, the deaths by consumption diminish; as the cold weather commences and continues, the deaths by consumption increase. It may, perhaps, be said, that the greater number of deaths in the cold months may arise from the greater number of patients who are seized with consumption during the cold weather. But we have before observed, that this disorder generally exists many months before it destroys the patient, so that most of those who die in January and February were ill during a considerable portion of the preceding year. That a greater number of consumptions begin in winter than in summer, Dr. S. allows; and, to shew that the number of deaths is greater, I shall refer to the London weekly bills of mortality. No. 5-12 for 1814, including the eight weeks from the 11th of January to the 8th of March, give 947 deaths by consumption. No. 29-36, including the eight weeks from the 28th of June to the 23rd of August, give 585 deaths.

Dr. Sutton inquires, (p. 205,) "Do patients more frequently recover from this disease in any certain climate?" The weekly bills give a decided answer to this question. The consumptive cannot die in so much greater numbers in cold than in hot weather, from change of treatment, for they continue under the same care and attendance at one period as at the other. The greater number of deaths cannot arise from greater variableness of temperature in winter than in summer,

summer, for it has already been shewn, that the variation is greatest in summer. It cannot proceed from the greater dryness of the atmosphere in winter than in summer, for the hygrometer generally indicates more moisture in the former than in the latter season. The fact that there are so many more deaths in the cold than in the hot weather must be acknowledged; and the only reason of the fact which can be given is the cold of one period, and the comparative warmth of the other. It is of no consequence, whether the patient removes to another country, and thus goes into a warm climate, or whether, while he remains in the same place, the change of season brings warmth with it. The effect is precisely the same.

From what has been advanced, I think we may conclude, that a temperature cold and variable, like that of an English winter, is the great cause of consumption in this country; and, when the disorder is once formed, materially contributes to its fatal termination; and that, on the contrary, an equable warm temperature hinders the formation of the disease, and, when it is formed, is a remedy of great power to oppose its progress.

New Broad-street; ISAAC BUXTON.
7th April, 1815.

For the Medical and Physical Journal.

Case of Subclavian Aneurism, which terminated favourably, under large and repeated Bleedings—The long-continued Exhibition of Digitalis—Application of Pressure, &c. &c.
By Mr. JOHN C. YEATMAN, of Frome.

DANIEL OWEN, living near Lawford's-gate, Bristol, æt. 37; robust, healthy from childhood; of a calm and firm mind; applied to me with an aneurism of the left subclavian artery.

This man has been employed in rope-making for five and twenty years. He perceived, about three months ago, a tumour of the size of a large nutmeg above the left clavicle, but did not think it of consequence to him. Was at this time employed in manufacturing and stretching some of the larger kind of rope. Had a hard cough and also a dull pain in the arm, which he attributed to rheumatism.

A month elapsed, when he discovered a pulsatory motion in the tumour; says it was evidently enlarged; felt at this period a tingling sensation in the fingers, with a dull pain

and numbness in the middle and outer part of the fore-arm, an inch below the origin of the brachialis internus muscle, which was occasionally suspended by friction.

February 20th, 1813.—The tumour, which appears to be of the size and shape of a pullet's egg, lies at the left side and root of the neck, just above the superior edge of the clavicle, and within an inch and a half of the sternal extremity of that bone, with its apex touching the edge of the outer head of the sterno cleido mastoideus; its base low down between the anterior and middle scaleni muscles, and its superior and external surface directly beneath the fibres of the platysma myoides. The tip of the little finger may be insinuated between the clavicle and inferior side of the tumour. The tumour presents an even surface, gives to pressure a slight degree of elasticity, but a small quantity of its contents only can be forced into the artery. It may be seen to pulsate from the opposite part of the room, and is attended with the tremulous motion and the hissing noise so characteristic of aneurism. These peculiarities are more strikingly evident immediately below the subclavian muscle and under the inferior fibres of the pectoralis major; the course of the subclavian artery, towards the axilla and beyond the aneurismal sac. The patient feels some pain in the tumour when he coughs; is indolent and sleepy; complains still of the tingling sensation in the fingers, and numbness in the middle and outer part of the fore-arm, and more especially when he walks and hangs his arm by his side. Naturally costive, in all other respects is perfectly well.

The operation for aneurism could not be, without great rashness, in this case attempted: first, because the tumour appeared to spring from the artery before it had emerged from between the scaleni muscles;* and, secondly, because a ligature cannot be depended upon so near the probable

* Indeed, we find Professor Colles, of Dublin, saying, "This operation, difficult on the right, must be deemed absolutely impracticable on the left subclavian artery: for the great depth from the surface at which this vessel is placed; the direct course which it runs in ascending to the top of the pleura; the sudden descent which it makes from this to sink under the protection of the clavicle, and the danger of including in the same ligature the eighth pair of nerves, the internal jugular vein, or the carotid artery, which all run close to, and nearly parallel with this artery; these all constitute such a combination of difficulties, as must deter the most enterprising surgeon from undertaking this operation on the left side."—Edinburgh Medical and Surgical Journal, p. 23.

burst

burst* of this great blood-vessel, the coats of which might also have undergone a morbid change.

The following was the plan of treatment which I adopted in this case, and which, I am happy to say, was attended with success.

Before I proceed, I will observe, that although I saw my patient always once, and generally twice, a week, from the commencement to nearly the final termination of the case, yet, without being tedious, I trust that the underwritten particulars will be found sufficiently minute to enable the reader to draw his own conclusions thereon.

February 21st.—Bled to two pints. To take a grain of digitalis three times a-day; low diet.

29th.—No alteration. Bled to two pints. Continue the digitalis.

March 12th.—Pulse 80 and not so full. In other respects the same. Bled to two pints. Continue the digitalis; to take ten grains of Extr. Colocynth cum Hydr. Submur. gr.iij. occasionally.

28th.—Complains of soreness over the tumour; no other alteration. Bled to twenty-four ounces.

April 5th.—Pulse 75, and more compressible. The digitalis and bleedings have not, however, produced that sensible effect on the circulation and constitution which might have been expected. Bled to two pints. Repeat the digitalis.

May 13th.—Pulse 50, slightly irregular, and easily yielding to pressure. Patient reduced in flesh and much weakened. Omit the digitalis, but continue the Cathartic occasionally.

The circulation being now favourable to the obliteration of the opening into the aneurismal sac, by the judicious application of pressure, I embraced the first opportunity of making that trial.

Considering, however, that the *sudden* compression of an artery seldom fails to increase its action, I thought it right to proceed in this respect by stratagem. I, therefore, determined to begin my pressure by only affording a tolerable degree of support to the tumour, increasing it gradually as circumstances might indicate. For this purpose, I contrived a small oblong doe-skin bag, firmly stuffed with horse-hair, rising towards the centre like a graduated com-

* The reader will perceive, that I am disposed to attribute this case to great muscular exertion, in which the artery was ruptured, the cellular membrane forming the aneurismal sac according to Scarpa.

press, and having two broad bands and buckles. The central part of the compress being applied to the superior and anterior surface of the tumour, one band was passed obliquely across the breast, under the right axilla, and brought over the back, was buckled to the upper edge of the compress at the superior costa of the scapula; the other band was passed under the left axilla and met its fellow in the opposite direction. This compression received an additional support by a long calico roller.

30th.—Pulse 70; tumour rather sore; skin hot. In other respects as usual. Bled to 20 ounces. To take a grain of digitalis, with ten grains of nitrate of potass, three times a-day. Apply six leeches to the tumour.

June 25th.—Secretions increased; soreness removed; no obvious alteration in the tumour; pulse 55. Continue all the remedies.

30th.—Pulse 48, and intermitting; nausea, and great debility; perspires much. Omit the digitalis.

August 14th.—Pulse 75, and full; the tumour is rather larger; complains of strong beating on the right side of the neck and left breast—in the course of the subclavian artery beyond the tumour. Bled to 24 ounces; felt extremely languid and faintly immediately after this bleeding. Has repeated the application of the leeches twice a-week ever since the 30th of May; says they remove the fulness of the parts.

21st.—Felt a dull pain and numbness about the scapula and axilla, in addition to the same sensations in the arm of the affected side; pulse stronger; slight heat and thirst, with a furred tongue. Bled to 16 ounces. Repeat the digitalis and nitrate of potass. To take ʒiſs of the sulphate of magnesia in two wine-glassfuls of water, every morning before breakfast.

29th.—Increased action of the vessels; heat and thirst, &c. complained of on the 14th and 21st inst. have gradually abated. Continue.

September 8th.—Pulse 47, and languid; greatly reduced in flesh and strength; perspires profusely; head-ach. Omit the digitalis, &c. The pressure has been gradually increased, but without producing any apparent good.

16th.—Pulse 60, and regular; no head-ach or profuse perspirations; the tumour appears larger.

22d.—Complains again of the same pain about the scapula. No further alteration. Repeat the leeches and cathartic pills.

25th.—Pulse 76, and full; pain again in the shoulder and breast

breast of the affected side; acquires strength and flesh; bled to 24 ounces; repeat leeches, pills, and digitalis.

30th.—Pulse 57; tumour enlarges; the superincumbent skin somewhat turgid. I discovered the whizzing noise in the right carotid; says the leeches remove the soreness and fulness in and about the tumour. Continue.

October 15th.—Patient's strength and flesh much reduced; pulse 48, and weak, but regular; slight head-ach and nausea. Omit the digitalis, &c.

November 12th.—The tumour has been increasing since the 16th of September, is about the size and shape of a half-pint breakfast cup, has risen an inch above the anterior surface of the clavicle, and has raised that bone somewhat out of its natural situation. Pulse in the left wrist affected by the tumour, being weaker and more irregular than in the other arm. Temperature of both extremities the same. Repeat leeches and the saline purgative.

December 5th.—Tumour still larger. He feels more restless at night, and more pain and numbness in the shoulder and fore-arm. Repeat the digitalis, and continue the other remedies.

January 1st, 1814.—Tumour stationary as to size. From this time the case went on without any particular alteration, the remedies being occasionally employed as the circulation required them, till

April 15th.—When the tumour did not pulsate so strong; it had become tenser, and the pains in the shoulder, &c. had ceased. The superincumbent skin is moveable, and of its natural colour.

May 10th.—No alteration since the last report. Continue the digitalis, increase the pressure, and repeat the leeches. Pil. Colocynth. cum Cal.

June 1st.—Tumour less, and remarkably tense; pulsation scarcely perceptible; tremulous motion and hissing noise not discoverable; no pain or soreness in or about the tumour; has the perfect use of the arm, without numbness and the tingling sensation in the fingers, which he has, more or less, complained of from the commencement; feels no pressure against the clavicle, but, now and then, a tingling and sense of heat about the scapula; pulse 78, and regular. The digitalis seems to have lost its effect in a great measure, the patient taking it for a much longer time than usual without being so sensibly affected. Continue digitalis, leeches, and pressure. The bowels have been constantly kept in a regular state by the alternate use of the drastic and saline purgatives. Bled to 14 ounces.

She

8th.—No pulsation in the tumour, and rather less. Continue the remedies.

July 4th.—Pulse 67, and full; tumour lessens. Omit digitalis. Bled to 16 ounces.

August 10th.—Pulse regular; tumour diminishes slowly. Bled to 14 ounces.

September 5th.—General health tolerably good; has regained some strength and flesh; pulse natural; tumour gradually lessens. Continue the pressure, leeches, and Pil. Colocynth. cum Cal.

October 1st.—Bled to 12 ounces. Continue. From this period the tumour rapidly diminished, and, in the latter end of December, no trace of it was to be discovered.

Concluding observations.—The depleting and sedative plan of treatment was, in this case, persisted in for more than a year and half. The force, as well as the rapidity, of the circulation, was thus constantly kept below par, and at times exceedingly weak. Meanwhile, the pressure directed the blood into the collateral vessels. Hence, little or no enlargement of the aneurismal tumour for many months. At length the tumour gradually enlarged, then remained stationary as to size, and next acquired an incompressible tenseness. The artificial pressure was now more particularly increased; and the other remedies were occasionally repeated. The pulsatory motion ceased. The tumour at first gradually, then rapidly, lessened, and finally disappeared. The arm soon recovered its wonted power, and the body its former strength and plumpness.

But, whether the cure of this aneurism is in any *very great* degree to be attributed to artificial pressure, is to me extremely questionable:—1st, because *a small portion* only of the contents of the sac could be thrust back into the artery; 2dly, because the pressure was not for *a long time* attended with any important advantage; and 3dly, because the tumour did not cease beating, nor diminish in size, *till it had acquired a great degree of tension.* I believe that the large bleedings so often repeated, and the sedative plan so actively and perseveringly followed up, by preventing the usual flow of blood into the sac, enabled its contents to undergo a more perfect and general state of coagulation, and that this led to the increased tension of the tumour. And, also, that this state of tension, or natural compression, combined with artificial pressure, had the effect of damming up the opening into the aneurismal sac, by forcing and retaining the coagulated blood against the ruptured side of the artery, during which coagulable lymph was thrown out, and, becoming organised, effected the complete obliteration of the aperture.

The

The following case, illustrative of one of the consequences of venesection, is not without interest.

Mr. John Broadribb, æt. 28, a generous liver, complained of pain and uneasiness in the left breast, which was increased by a deep inspiration. He laboured under no other particular inconvenience. I, at this time, happened to call at his father's house on my way from Bristol to Frome, when my advice was solicited. I recommended him to lose some blood, which was immediately complied with. The bleeding, which was from the left arm, soon afterwards gave him relief. A few hours, however, had scarcely elapsed, when (as I subsequently learnt) great pain was felt in the fore-arm and shoulder. These symptoms, as they did not alarm the family, were not attended to for *four days!* during which, extensive inflammation and partial delirium took place. In this state he was conveyed in a chaise to a surgeon and relative in the adjoining village, whose illness confined him to his bed. This gentleman stated it as his opinion that the inflammation was the immediate though unavoidable consequence of the bleeding. A respectable surgeon in the neighbourhood was now sent for, who concurred in the same opinion, and afterwards informed me that an inflammation of the lymphatics had extended up the fore-arm, and over the shoulder and left breast, with considerable "erisipelatous appearances;" that this had proceeded to a most violent degree, attended with delirium and the concomitant symptoms; and that gangrene and death followed.

Note.—The orifice healed kindly and rapidly, and was not attended with the slightest inconvenience. No discoloration of the skin was apparent at the time of bleeding. It must not be omitted that some of his family are subject to erisipelatous attacks.

JOHN C. YEATMAN,
Member of the Royal College of Surgeons, &c.

Frome; April, 1815.

For the Medical and Physical Journal.

On the Treatment of Wounds and Ulcers, and Hæmorrhage; by Mr. RICHARD WALKER, of Oxford.

IT is my intention, as I stated at the commencement of these papers, both in physic and surgery, to confine myself to observations founded on my own experience; and in this, likewise, not to extend them to circumstances already known or established in either of these professions. It will, therefore, be found, that, although there may be a close ap-

proximation in some points, amidst such as are entirely new, yet even here there will be a sufficient shade of difference to constitute a degree of originality throughout; and, moreover, the whole may be relied on as the result of my own observation and experience.

The treatment of sores and ulcers of every description, is considered of so important and difficult a nature, as to occupy, in every practical work in surgery, a very considerable space, in consequence of the various divisions or heads under which they are placed, and the various modes of treatment to be adopted under each separate head.

Experience has convinced me, that, notwithstanding the labour which has been bestowed on this portion of surgery, the perfection to which it may be supposed to have arisen, and the best information to be obtained from books, the mode of treatment in such cases, even by the first professional persons, is frequently defective; and it occasionally becomes a matter of experiment to them, how to succeed in curing certain obstinate ulcers.

My opportunities of observation has enabled me to ascertain new and useful facts, sufficient to reduce this department of surgery to an almost mechanical accuracy of perfection in practice.

By the general introduction of *adhesive plaster*, which is of late years, in sores and ulcers, the practice is exceedingly improved, and much simplified. Cases, however, occasionally occur, in which adhesive plaster should be laid aside, and other means adopted.

My design here will be to shew where adhesive plaster is serviceable, and the best mode of applying it in such cases; and, likewise, where the use of it is to be dispensed with; and to point out, briefly, the best mode of management, as it has appeared to me, in every diversity of case which may occur. And I trust it will be found, by connecting these observations with those already given in a paper of mine, a few years since, in the Medical Journal, and which I have had occasion before to allude to, on the subject of the extraordinary efficacy of a "new modification of Carrot-poultice in certain Sores and Ulcers," that every intention will be quite or nearly fulfilled.

In all cases of fresh wounds, whether incised or lacerated, however extensive, (the blood-vessels, if any require it, having been previously secured by ligature,) adhesive plaster on cloth, or occasionally on black silk, is commonly the only application required throughout the cure, assisted by bandage. Likewise, in every case of simple ulcer, the application

plication of adhesive plaster, using occasionally, when the cavity of the sore and quantity of discharge require it, lint, lightly laid on, and in sufficient quantity only to absorb the discharge.

In every case the lips of the sore are to be brought as close together as can be, at each dressing, and the plaster supported well by bandage; and in all instances, in parts which admit of it, as in the arm or leg, in order to produce the completest effect, the limb should be entirely surrounded by the adhesive plaster.

The usual method of applying adhesive plaster to sores of considerable extent, is to begin by applying a strip to the middle of the sore, proceeding, progressively, towards each extremity of the sore; in many cases, as in stumps after amputation, &c. this method is indispensable. The best method, however, in extensive wounds, wherever it can conveniently be done, is this:—having previously prepared a sufficient number of strips of adhesive plaster, begin the application of them at one extremity of the sore, (an assistant pressing the lips of the sore as nearly in contact as can be) and finish at the other extremity, each succeeding slip of plaster wrapping a little over the preceding one, applying, lastly, a binding strip, placed lengthways over the former, in the direction of the wound, extending somewhat beyond the former at each end. The next time invert the order of dressing, by beginning at the other extremity of the sore, renewing each strip successively, as the old one is removed; continuing this mode of dressing alternately: by this means the sore is prevented from opening again, and the external air is excluded. In cases of inflammation, as a refrigerant and discutient, a cataplasm of bread and goulard liquor, applied quite cold, or nearly so, according to circumstances, morning and evening, or oftener, if the heat of the part require it; using as a relaxant, or emollient, a cataplasm of bread and milk; and linseed flour and water, alone, or with suitable additions, as a suppurative cataplasm. And, as a purifyer for sores in a putrid, unclean, or unhealthy state, from any cause whatever, nothing is equal, as I have found by the most convincing experience, to the cataplasm of boiled carrots, prepared and applied according to the directions I have given in a small Treatise expressly on that subject. As a cicatrizer, when such an application becomes necessary, nothing is so efficacious as a weak solution of nitrate of silver.

The nitrate of silver possesses so specifically the power of cicatrizing sores, that I have repeatedly known it, when used with the intention of stimulating artificial openings, as

fontanels, &c. to discharge, to skin them over completely, even to the very bottom.

With respect to cerates, I shall only observe here, that considerable irritation and mischief is frequently occasioned, especially in hot weather, in consequence of their consistence not being sufficiently hard, whatever may be the ingredients they are composed of. Hence, I have been led to allow about one-fourth more of wax to a cerate to be used in summer than in the winter, and with very eminent advantage. I cannot forbear remarking here on the very pernicious effects of the adhesive plaster commonly sold under the name of *court-plaster*, which too commonly converts a slight scratch into a serious sore.

In all cases of wounds, sores, or ulcers, in the leg, rest in bed is essential to effect a cure perfectly and expeditiously; continued until the healing is become quite perfect and firm—supporting the part well with a roller for some time after. When such sores are accompanied with any considerable degree of inflammation, rest in bed is indispensible. Such inflammation is best removed by a goulard poultice, moist in consistence, and plentiful in quantity, applied every night and morning, or oftener, if the heat and pain in the part indicate it;—the temperature of the poultice should be such as to feel rather cool to the patient. It is the custom with some persons to add a small portion of camphorated spirit to the goulard liquor: this is extremely injurious, occasioning great pain, and increasing the inflammation.

It sometimes happens, though very rarely, if the above directions be attended to, that a poultice of bread and water is easier than one of bread and goulard liquor. When the inflammation has sufficiently subsided, adhesive plaster may be applied, finishing the cure with this, or goulard, or any other cerate, of a hardish consistence. Should there be a slight tendency to heat or inflammation in the part when the poultice has been left off, which is common towards evening, cloths, damped or soaked with goulard liquor, may be applied, over the dressing, observing to renew this as often as the heat of the part may indicate.

In order to heal a sore, particularly fresh incised wounds, with as small a cicatrix as possible, the propriety of which is too obvious to remark on, it is essential, that, at the first dressing, the lips of the wound be brought as closely into contact as possible, and confined in that state by adhesive plaster, sufficient in length, where the part will admit of it, to surround the limb entirely, in the manner before-mentioned; and where the part does not admit of this, to make a sufficient purchase, to prevent the lips of the wound from receding.

receding. In the subsequent part, particular care must be taken that the sore remain not so long without dressing as that the lips of the wound recede, by the accumulation of the discharge loosening the hold of the plaster at the sore, and the lips forming a permanent adhesion underneath, at a distance from each other, which cannot afterwards be remedied. The observation last mentioned is of the utmost importance, in diminishing the scar left after the wound is healed, as well as in the expedition and firmness of healing. It will be proper, if sufficient time has elapsed for the wound to have become dry, to reduce it to the state of a bleeding fresh wound, by gentle irritation, in order to make the parts coalesce, especially in lacerated wounds.

It is essentially necessary, as I have found by long experience, that sores of every description, even trifling ones, should be dressed twice in the four and twenty hours, viz. early in the morning, and late in the evening, in order to go on well, and heal expeditiously and soundly. The exceptions to this rule are, in cases of fresh wounds; such cases as it would be either dangerous, too painful, or extremely inconvenient, to disturb so often; cases in which there is little or no discharge; and in those sores which are nearly healed. There is, in general, less occasion for frequent dressing during the use of adhesive plaster, than in the use of cerates, &c. Sores of all descriptions should be kept clean, and exposed to the air as little as possible at the time of dressing. The circumstance of dressing a sore every night and morning, is alone conducive, in a very essential degree, to the first of these objects. Care should be taken that the part be kept warm or cool, according to the season of the year and other circumstances; and, in very cold weather, that the dressing be somewhat warmed. Moreover, it should never be forgotten, that rest of the part, and an horizontal position, are most favourable, and, in many cases, indispensible, to the cure of sores of every description.

Superficial excoriations, discharging a thin acrimonious gleet or serum, most frequent in hot weather, are readily dried up and healed by the application of thin strata of dry lint, covered with goulard cerate of hardish consistence, and dressed often; and, if accompanied with a considerable degree of heat or inflammation, the dressings covered with cloths damped or wetted with goulard liquor occasionally, applied cold. In sores, however small, a biting corroding kind of pain coming on towards night, the sore having been dressed in the morning, is a sure sign that the sore requires to be fresh dressed; this corroding kind of pain evidently

arising from the acrimonious effect of the matter discharged, and which ceases after the sore is fresh dressed.

Rest is so essential to the cure of ulcers, scorbutic sores, &c. that the attempt at curing sores of this description in working people, is frequently an almost endless business. Hence it is that persons of this description are so easily and speedily cured in hospitals, comparatively with those who attend daily a private surgery, following their ordinary avocations. A due application of adhesive plaster, with tight bandage, &c. may effect this in time; but, notwithstanding what may be said to the contrary, I am convinced, by repeated experience, that sores cured whilst the person is up, and following his usual occupation, are likewise not so firmly nor permanently healed as by rest; many such cases having returned to the Infirmary, and requiring, in order to make the healing sound and permanent, such management.

In every species of sore which will admit of it, and wherever situated, advantage should be taken of the application of adhesive plaster and bandage, in order to facilitate the healing of the sore, and likewise to obtain as small or narrow a cicatrix as possible. This latter precaution is particularly requisite in wounds of the face, and requires particular and constant attention; for, if the lips of the wound be once suffered to coalesce, in a separated or receded state, to the parts beneath, they cannot afterwards be brought into contact. This receding commonly arises from the discharge loosening the plaster; therefore, during this disposition of the sore, it should be dressed once, or even twice, every twenty-four hours, viz. at night as well as morning. Ligatures should never be used but in cases of absolute necessity, as in instances where the lip is divided or cut through, &c. and in large wounds, the lips of which cannot be otherwise brought and retained near together; and in these cases the ligature should always be supported by strips of adhesive plaster.*

A cataplasm or poultice may be considered as an application of a specific nature, with regard to efficacy in the cure of most ulcers and sores, which apparently resist all other means or modes of application, and, therefore, must occasionally be resorted to; the composition, consisting of articles agreeably to the nature or disposition of such sore or ulcer.

Rest in bed, with the application, every night and morn-

* For *goulard*, throughout this paper, may be substituted *saturnine*.

ing,

ing of a poultice of bread and milk, or in defect of fresh milk, bread and water, or of bread and goulard liquor, or the common linseed poultice, using either according as circumstances may indicate, will almost infallibly cure any ulcer or sore, not arising from a constitutional taint, as venereal, cancerous, scrophulous, &c. The temperature and renewal of the poultice should be regulated according to the following circumstances, viz. moderately warm, if the part be of an ordinary natural temperature, and cooler, or quite cold, if the part be unnaturally hot or intensely inflamed. The renewal should be regulated by the quantity of discharge, and according as the part may require excitement by regeneration of heat, or inversely an abstraction of heat, observing that the renewal be never seldomer than twice in every twenty-four hours.*

The linseed poultice is ordinarily used as a stimulating or suppurative poultice, and is, therefore, always applied warm, and occasionally renewed three, four, or more times in the twenty-four hours, adding occasionally to it other stimulating or suppurative ingredients, as onions, figs, &c.†

The propriety or necessity of dressing sores of every kind twice in the twenty-fours, (with the exceptions elsewhere pointed out,) whatever may be the nature of the application, viz. early in the morning and late in the evening, in order to the best management of them, as a general rule, originates entirely with myself, such mode being pursued by others only under extraordinary circumstances.

The advantages of it are, that the part is kept cleaner, too great an accumulation of discharge is prevented, which irritates and heats the sore; and, in certain habits, especially in hot weather, prevents a tendency to putrefaction, and likewise, as I have frequently observed, quickly removes it if commenced; and, upon the whole, diminishes the quantity of discharge, and promotes health and healing in the sore.

I have occasionally known even common blisters, from the application of vesicatories, in consequence of being dressed only once in twenty-four hours, in bad habits, par-

* But it must be observed, that ulcers or sores are not so firmly and uniformly healed by poulticing, as by dressing and bandage; therefore, at a certain period, the poultice should be discontinued, and those means adopted.

† Cataplasms and a more strongly stimulating power are occasionally required, as the *cataplasma terebinthinæ*, &c.; and as an antiseptic, the *cataplasma effervescens* is the ordinary application.

ticularly

ticularly in hot weather, become vitiated or acrimonious, and show a strong disposition to putrescency or virulence, and which, doubtless, would have increased, had not the mode of dressing twice in the twenty-four hours been adopted, using precisely the same kind of dressing as before, which soon completely corrected such disposition, diminished the discharge, and quickly effected a cure.*

Whilst speaking of vesicatories, I shall observe, contrary to the ordinary opinion, viz. that blistering is always safe, and can never be productive of evil consequences (unless in cases where mortification may be apprehended); that I remember an instance of a young woman in an extremely irritable debilitated state, from an attack of fever of the typhoid kind, who evidently lost her life in consequence of the application of a large blister. The blister was directed *secundum artem*, i. e. according to the regular routine of practice, which is perfectly mechanical with some practitioners, for a pain in the side, without adverting to, or the least consideration of other contingent circumstances, which increased the irritability, debility, &c. to such a degree, that she actually sunk under it in a day or two and died.

The two circumstances which I have so strongly inculcated, viz. the specific nature of poultices in ulcers and sores, and dressing twice in the twenty-four hours, may be considered as axioms in the cure or management of sores ever to be kept in view; to which I might join, rest in bed, in certain cases, as not less essential.

The application of a roller is essentially necessary, both for keeping the lips from receding in fresh wounds, and, likewise, in all instances of sores and ulcers, in order to bring and keep the lips or edges of such sores towards contact as much as can be. It is truly surprising, as well as extremely satisfactory, to observe the difference between slack rolling and tight rolling in sores and ulcers, particularly in the leg; by a comparative trial, the latter will be found

* My residence in the infirmary afforded me opportunities of observation, and of ascertaining facts in various instances which cannot be obtained in private practice, nor by an ordinary attendance at an infirmary. In particular cases, I dressed patients myself twice every twenty-four hours, at regular periods, viz. about eight o'clock, A. M.; and at the same hour, P. M.; at other times, directing it to be so done. This should be a general rule with most sores, but which would be extremely irksome and inconvenient in private practice. And, if the avocations require the patient to be up and about, the sore should be dressed previously and well rolled, especially in ulcers and sores in the leg.

eminently

eminently superior, and to facilitate the healing in an extraordinary degree.*

It may be necessary, however, occasionally, particularly in full habits, or elderly persons, to slacken the roller every afternoon, or towards evening; if the swelling of the part render it painfully tight, especially as tight rolling is much less required in an horizontal position.

N. B. Care must be taken in curing sores, particularly ulcers of long standing; that the lips be not brought together too forcibly by the application of adhesive plaster, least the part should retract or give way again, after that is left off; and, likewise, that the part be well supported and kept from retracting by wearing a roller for a sufficient time afterwards, and which, in some instances, should never be left off.

Oxford; RICHARD WALKER.
April 5, 1815.

(To be continued.)

COLLECTANEA MEDICA,

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, QUERIES, SUGGESTIONS, &c.

RELATING TO THE

History or the Art of Medicine, and the Auxiliary Sciences.

THE following Account of Egypt is taken from Baron Grimm's celebrated Memoirs. We have thought it right to copy it, not merely on account of the curious facts and well-founded conjectures with which it abounds, all of which relate to the health of the place, but on account of one epidemic disease which is now constant in that country, and of which, in its more flourishing days, history gives us no information. Is it likely that the true plague could have been unknown at those times? Is it not more probable, that, during the plague season, all the initiated, who consisted of all the best informed part of the population, retired to

* It is, of course, always understood, that in ulcers and sores of any consequence in the leg, that the roller be applied from below the ankle up to the knee, especially if the patient be up and about; and that so necessary is due pressure by a roller under these circumstances, as a support to the part, and for preventing the descent of the humour, that the omission of it for a few hours only will be evidently apparent to an experienced surgeon.

these retreats, which secured them from the concentrated effects of a pestilential atmosphere, by inducing a constant current from the different temperature within and without? From the caution given to Herodotus, we may conjecture that only certain individuals, secured, by the priests, by charms or incantations, could venture into these parts. Even the fable of the sphynx, who devoured all that did not comprehend her mysteries, was, probably, only an anathema against such as ventured into the labyrinth without proper instructions. Should Egypt again become the seat of our arms; above all, should that most central of all spots on the habitable globe become a British settlement, would it not be desireable to explore these curious retreats, and see how far art can supersede the only alloy attendant on so highly favoured a region?

M. Girat's *Account of the Pyramids of Egypt.*

The most favoured climate in the world has its inconveniences: even Egypt is not without its evils, notwithstanding its great fertility. Though its situation only approaches the tropic, it endures more heat than the torrid zone in many parts of the globe. Those frequent rains and seasonable storms which temperate and refresh the heated air of the tropics, are here almost unknown. A cloud is never to be seen between the sun and the earth; and the rays of the sun, concentrated and reflected, fall perpendicularly on the two chains of mountains which follow the course of the Nile, becoming like a burning mirror, which spreads its flames far and wide; for, whilst the heat pursues you, the land offers no retreat.

Egypt is entirely without high trees: it boasts none of those forests whose waving acts as a ventilator in the torrid zones, and whose elevated and umbrageous summits arrest the sun's rays, and keep up a steady coolness below, during the intense heat that reigns above. The earth, impregnated to a great depth by the waters of the Nile, is rendered fertile by this great heat; but the living creatures suffer continually from it. There are parts of the year when the animals who feed in the neighbouring plains are parched as by a fire, fill the air with their cries, and rush into the waters of the Nile, where they remain night and day. The buffalo, the hog, the horse, and the ox, are there almost amphibious; it would appear that Egypt, at certain periods, had no other living creatures except fish. It was in Egypt that a Frenchman wrote the singular work called *Tellamied*, where he pretends that all the animals, and even man, commenced their origin as fish. The men and women certainly live in the waters of the Nile very much with the fish. One is surprised to see the number of children and young people swimming across and amusing themselves about this river and its canals. In the time of Herodotus and Thales, they were seen rising from the water, and surrounding the boats which came up and down the Nile, accompanying them with their songs. This sight, one would suppose, gave rise to the fable of the Nereids.

Homer

Homer saw it: Homer's genius was formed in part by what the nature of Egypt offered to him.

"But this climate has something still more terrible than its burning heat, a scourge that the waters of the Nile cannot prevent, and which deprives the inhabitants from seeking refuge in the river. I mean those violent winds which come from the sandy deserts of Arabia, by which Egypt is surrounded. In one moment the ground and all the atmosphere is filled with a sand which appears to have been reddened by fire, and which penetrates the smallest interstices of the walls and other enclosures. The houses do not even afford shelter, and often whole families have been buried in their beds by these torrents of burning sand. There is no security for the inhabitants at those times but the earth, which the Egyptians and Africans in general resort to for safety. These people have always lived a good deal under ground, and those subterraneous and gloomy dwellings which frighten our imaginations, are to them most delightful asylums. In almost the whole extent of Africa, the climate at times has rendered these habitations necessary and agreeable. When Hanno left Carthage on his voyage of discovery like the modern Cook, he saw, at night, fires all along the western coast of Africa, and heard the sound of musical instruments, of dancing, and singing. As soon as the sun appeared in the heavens, all was silent; no human being was heard or seen; all appeared a desert, abandoned to the sands and the influx of the sea. All the people at that time were taking refuge in their caverns. At the other extremity, on the eastern coast, we have seen the Ethiopian Ichthyophagi only roused from their stupid indolence to search for caverns which the sun could not penetrate; we have seen them construct artificial rocks with sea-weed and sand, resembling a rough pyramid. In Upper Ethiopia, and near the cataracts, the ground is covered by deep excavations made for the habitations of the natives. It was here the Ethiopian priests made their sacrifices and their initiations; and here some of them passed their lives without ever seeing the heavens, that sun and those stars which they adored. The Ethiopians, as descendants of the Egyptians, preserved their taste for these dwellings, which became more necessary to them among the calcined rocks of Lybia and Arabia. Thebes, with its hundred gates, was at first a subterraneous city: its first street and dwellings were formed out of two parallel rocks to the right and left of this capitol. Those which were called the king's burying places, were, in fact, a subterraneous country, where a whole nation could be accommodated, and where were to be found innumerable galleries, halls, palaces, and temples. These caverns might also have been used as royal burying places; but I must place some confidence in history, which says expressly, that the first Theban kings lived there. We may also admit, that the same building afterwards accommodated both the living and the dead.

A number of temples in Egypt were excavations from rocks. (See in Diodorus Siculus a long account of the tomb of Osimander.)

That description gives us a true idea on the subject, which the word tomb hides from us. There are still to be seen in Egypt several other edifices, by different names, resembling Osimander's tomb; such as the Labyrinth, the most celebrated of all the famous Egyptian edifices which Herodotus speaks of as having seen and visited. This place served as a rendezvous for the kings, when there were twelve in Egypt, as well as for the priests, and the nation in general, to deliberate in. It appears that the Labyrinth contained the same number of apartments under ground as above, which were innumerable. Herodotus wished to explore them, but was prevented by his guides, being told there were in these caverns crocodiles, consecrated to the sepulchres of those kings who had constructed the labyrinth.

From all these circumstances, M. Garat concludes, that these immense dwellings were intended principally to protect the priests and the people in their public ceremonies, whether political or religious, from the intense heat of the sun, and the whirlwinds of burning sands, which penetrated to the interior of all their other buildings. More than half, adds he, of these pyramids was under ground; and even that part which was raised to six hundred feet above ground, formed of enormous rocks thirty or forty feet thick, closed all round hermetically, was only as it were a sort of cavern raised above ground. There are still some breathing places to be found, which were intended, no doubt, to renew the air of the pyramid at those times when the external air was the coolest. It was here the Egyptian priests retired to meditate on their gods, and to make new ones, and to take measures against the usurpations of some of their kings, as well as to celebrate those famous mysteries of antiquity. These dark abodes were well calculated to inspire the enthusiastic mind with terror. Edifices raised so high in the air, and so low under ground, were admirably contrived to persuade the initiated that he was at times raised to the heavens, and at others precipitated to the infernal regions. Long tunnels and galleries, where the report of a pistol-shot is reverberated in continued echoes, like the noise of a cannon, were well constructed to make the initiated fancy he heard the sound of thunder. In a word, I am persuaded that these buildings served for many purposes of society, as well as all the other buildings of the same kind.

There were two Egypts, one above, the other under, ground; and the pyramids partook of each. Whether above or below, they always served to protect the natives from the too great scourges of their climate, the parching heat of the sun, and the gusts of burning sand. This conclusion may not be approved, but I have drawn it from the nature of the climate, from the general plan of the Egyptian architecture, from their taste for subterraneous dwellings, from their religious ceremonies, and from all that history relates of the prodigies of their initiation.

That the vast difference in the seasons produces the necessity for such

such retirement, is sufficiently proved by the very accurate description collected from Dr. Clarke.* "Villages," says that interesting writer, "in an uninterrupted succession, denoted a much greater population than we had imagined the country contained. Upon each side of the river, as far as the eye could survey, were rich corn and rice, with beautiful groves, seeming to rise out of the watery plains, and to shade innumerable settlements in the Delta, amidst never-ending plantations of melons and all kinds of garden vegetables.

"Upon the retiring of the Nile," continues he, "this country is one vast swamp. An atmosphere impregnated with every putrid and offensive exhalation, stagnates, like the filthy pools over which it broods. Then the plague regularly begins, nor ceases until the waters return again. Throughout the spring, intermittent fevers universally prevail. About the beginning of May, certain winds cover even the sands of the desert with the most disgusting vermin. The latest descendants of Pharaoh are not yet delivered from the evils which fell upon the land, when it was smitten by the hand of Moses and Aaron; and the plague of frogs, the plague of lice, the plague of flies, the murrain boils and blains, prevail so, that the whole country is corrupted, and the dust of the earth becomes lice upon man and upon beast throughout the land of Egypt." To prove this, it is only necessary to visit the country at different seasons. During the months of June, July, and August, there was hardly an individual who did not suffer, more or less, by the ophthalmia.

In the same chapter he remarks, "The mercury remained fixed at 90° for several days, without the smallest perceptible change. Almost every European suffered an inflammation of the eyes. Many were troubled with cutaneous disorders. Many persons were afflicted with boils on their skin, which were called boils of the Nile; and dysenteric complaints were universal. The plague of flies covered all things. It was impossible to eat without hiring persons with flappers at every table. Liquor could not be poured into a glass: the mode of drinking was by keeping the mouth of every bottle covered till the moment it was applied to the lips, and removing it to another covered with the palm of the hand. No cleanliness could secure you from vermin. A gentleman made his appearance before a party he had invited to dinner, covered with lice; the only explanation he could give, was, that he had sat for a short time in one of the boats upon the canal."

After this account, can we wonder if, in such a country, the whole business of life was to find a retreat from the external atmosphere during the summer season. In the winter, the temperature is suited to the plague; but from this there is a resource in well-ventilated apartments. In summer, ventilation is only the admission of a noxious air and disgusting insects. At a period, therefore, when labour was of little value, and almost the whole

* Travels in Africa, &c. sect. 2, part 2, chap. 2.

population might be directed to a single object, it is at least less wonderful that such erections should be raised. It may, perhaps, be asked, why they are not still appropriated to the supposed original purposes. The answer to this is not very difficult. From the time that we have distinct records of Egypt, it has been a conquered country, and maintained in subjection by an inconsiderable armed force, which has been engaged only in oppressing the natives, and preventing insurrections. During centuries of this unnatural state of existence, no wonder if the habits of the native princes, with those about them, have been lost, whilst, probably, the servile race, and even the plebeian class, may have gradually lost every idea of luxurious refinements, by the impossibility of acquiring them. Should Egypt ever again be governed by wholesome and equal laws, can we doubt that the wealthy will discover some means of avoiding the constant annoyance above described. Can we conceive any retreat better calculated for a long and uninterrupted serenity of sky, suited only to those insects which bask in the sun-shine, and whose unrestrained multiplication must be principally supported in their successive generations by feeding on the larger animals.

Account of the Proceedings of the French Institute in the Departments of Physiology, Anatomy, and Surgery, for the Year 1814. By M. Cuvier.

M. Dutrochet, a physician at Chateau Renaud, has generalized his researches and presented the results to the Institute, in a Memoir on the Envelopes of the Fœtus, of which we shall now give a sketch, subject to the remark, that the committee of the Institute have not yet been able to verify these results.

The author thinks he has discovered, that, in the earlier stages, the fœtus contained in the egg has an aperture at its abdominal parietes, and at its amnios, through which there passes an extension of the bladder, which forms the chorion and the intermediate membrane: so that the umbilical vessels are nothing but productions of the vessels of the bladder. According to M. Dutrochet, the egg of the reptile genus is a vitellus deprived of albumen; and, in the viper, the membrane of the shell, which is extremely thin, disappears towards the middle period of gestation, the bare chorion then contracts adhesion with the oviductus, without forming, however, a true placenta. Thus this membrane of the shell would be analogous to the *deciduous membrane* of the mammiferæ. He asserts, that the bull-headed frog does not throw off its skin to metamorphose itself, but that the anterior paws pierce this skin, that the teeth tear it, and the apertures cicatrize. The egg of the frog is a vitellus, the emulsive matter of which is contained in the intestine itself, which, at first globular, lengthens by degrees into a spiral tube, as we see it in the bull-headed frog. M. Dutrochet has also some peculiar ideas as to the respiration of the fœtus, and particularly as to the gills of the frog, which he thinks

thinks are placed within the cavity of the tympanum. We shall speak of his paper more at length, when the season arrives to admit of our repeating his observations from nature.

Comparative anatomy had never determined in a positive manner the nature of the respiratory organs of the cloportæ. We know, that these animals resemble greatly in structure the crustacea; there was reason to suppose, that the laminæ placed under the tail served for respiration, as they certainly do in craw-fish, animals which resemble the cloportæ much. But it remained to ascertain the fact, and to shew at the surface or in the inside of their bodies any apparatus for performing this function.

M. Latreille, who has been recently elected into the Institute, has filled up this hiatus in zoology. He has shewn on four of the laminæ in question a small yellowish part, pierced with a hole, and containing in the inside small filaments, a part which he compares to those, which although differently placed in the spider and scorpion, have nevertheless an analogous structure and answer the same purpose. Notwithstanding this partial resemblance and the existence of a kind of web apparatus, which he observed in the cloportæ, and which is an additional connection with the spider, M. Latreille does not separate the cloportæ from the crustacea, on account of their other much more numerous analogies to this class.

Insects have been long divided into two categories, according to the structure of their mouths, some having teeth well developed and which can divide solid food, while others have trunks or suckers adapted for liquids only. There are even some which, at different periods of their lives, assume both these forms of mouth, and in which a metamorphosis changes into suckers, when in their perfect state, what were masticaters in their state of larvæ: such, for instance, are the butterflies, which feed by a double trunk only, generally spiral, which they unroll in order to introduce it into the bottom of the corollæ of flowers to suck the nectar; whereas caterpillars, which are butterflies not yet developed, have their mouths armed with strong teeth, with which they cut the hardest leaves. Thus it has been supposed, that the caterpillar in taking the wings, the long legs, and the beautiful antennæ of the butterfly, also took its trunk and lost entirely its teeth.

M. Savigny, the member of the Institute of Egypt, has proved by some delicate and accurate observations, that this is not the case entirely, but that nature in this as well as in many other cases, confines herself to altering certain parts in order to develop others from them; thus producing effects entirely opposite by these simple changes of proportion. He has discovered, at the basis of the trunks of the butterfly, two organs of extreme minuteness, but which nevertheless represent the teeth of the caterpillar; at the back of the support of this same trunk, he found two very small filaments, which appeared to him to be analogous to the maxillary palpæ, so that the two laminæ of which the trunk is composed, are, according to M. Savigny, the points of the

the maxillæ extremely elongated, i. e. of the lower pair of grinders. Finally, the great feelers known to all naturalists are the palpæ of the lower lip. The two small maxillary feelers had been already perceived in some kinds of night butterflies; but we are indebted to M. Savigny for the information that they exist in the whole family. This acute observer has also established a marked analogy between the bristles and some other minute parts, which generally accompany the suckers of insects with two wings, and the mandibles and the maxillæ of the masticating insects: so that the structure of this numerous class of animals presents in this important part of their organization, a more satisfactory uniformity than has been hitherto supposed.

M. Savigny also examined the mouths of insects, which, in addition to palpable grinders, have a trunk formed by the prolongation of their lower lip, insects of which the bees are the most remarkable. It had been supposed, that the aperture of the pharynx was situated under the trunk or lip, whereas, in the common masticating insects, it was above; but this is a mistake: the pharynx is always on the basis of the trunk, and it is even there furnished with parts interesting to be acquainted with, and of which M. Savigny gives a detailed description. His memoir is intended for the great work upon Egypt which is about to be terminated in consequence of the *munificence of the king*.

M. Cuvier has made some researches concerning another class, the mouths of which also present, in appearance at least, numerous anomalies, viz. fishes. Here we find every part which belongs to quadrupeds; but some are more subdivided, and their subdivisions are sometimes reduced to such a minuteness that they cannot perform their functions, and we have even a difficulty in perceiving them. The greater number of fishes have intermaxillaries and maxillaries which are very visible; but these bones differ much from each other in point of proportion; and the maxillaries in particular sometimes form part of the edge of the jaw, and have teeth, and sometimes they are placed further back and have no teeth, a circumstance from which naturalists have erroneously named them mystaceens, or labial bones. These differences afford the author generic characters very convenient for effecting a more natural distribution of the species, but they cannot serve for distinguishing the orders. For this latter purpose, M. Cuvier has recourse to more striking differences, such as the coalition or adhesion of the maxillaries with the intermaxillaries, which takes place for instance in the tetradons, the coffre, and the balistæ, or such as the separation of the one from the other, and the obligation upon nature to employ the palatal bones in forming the upper jaw, which is observed in the raii, the squale, &c.

The author was not able to discover any other characters than those for establishing a first distribution of the class of fishes. In consequence, he refers to the common fishes the genera, which, having the same structure, mouth, and gills, and, nevertheless, been

been placed among the branchiostegal or cartilaginous fishes, on account of some singularities of external form, or because their skeleton took a little more time to harden than the others; such are the centrisci, the *cyclopteri*, the lepagadasteri, &c.

M. Cuvier has founded upon these and similar views, the peculiar methods according to which the fishes will be distributed in the work which he is preparing upon comparative anatomy.

The same ingenious naturalist has also presented to the Institute Observations on a great number of Species of Fishes, collected during Three Voyages along the Shores of the Mediterranean. Some are new, others had been erroneously named or distributed by various authors; many of them presented a curious structure, or gave rise to the establishment of new genera, or to the subdivision of the old genera. These details cannot enter into our present report, but naturalists will find them in the first volume of the Memoirs of the Museum of Natural History, of which one number has already appeared.

M. Risso, the author of the Ichthyology of Nice, has transmitted to the Institute a supplement to that work, in which he describes several fishes with which he was not before acquainted, and which are very curious and interesting.

M. Lamouroux has extended and brought to perfection his great work on the Polypi, which we mentioned two years since, and which will speedily be published.

All must recollect the fine experiments of M. Majendie upon vomiting and the invitation given him by the class to examine what part was acted by the œsophagus in this disordered movement of the stomach. Although his researches have not yet afforded him any decisive results, they appeared to him to be sufficiently interesting to communicate.

The alternate constrictions and relaxations of the œsophagus appeared to him to take place in the inferior third part only, where it is chiefly animated by the nerves of the eighth pair. The constriction increases much and lasts long when the stomach is full. When the œsophagus is cut and detached from the diaphragm, the injection of an emetic into the veins produces no more vomiting, and its immediate introduction into the stomach becomes necessary for this purpose.

M. Delpech, the Professor of Surgery at Montpelier, has sent to the Institute a Memoir on the Putrescency of Hospitals, a species of gangrene which attacks wounds when the patients are too much crowded together. He is convinced that this formidable symptom, which few practitioners have mentioned, essentially proceeds from a local contagion, and is propagated by the linen, the dressings, and the instruments. Its progress is checked when the wounded are removed or exposed to a current of air: the utmost attention to cleanliness are necessary to prevent its spreading; but the only true remedy, according to M. Delpech, is to destroy life, by the actual cautery in the parts which are affected by it.

Some years ago, M. Maunoir, a Surgeon of Geneva, sent in a Memoir

Memoir on the Advantages of the Method of Amputation invented in England, and which consists in cutting the skin much lower than the bone and muscles, and in such a way as to preserve enough to cover the stump by bringing all close together immediately after the operation.

M. Roux, a Surgeon of Paris, has presented a Paper on the same subject, in which he shews, from his own experience, that this method diminishes the sufferings of the patient, that it prevents hæmorrhage and suppuration, accelerates the cure of the wound, and leaves the stump in a more convenient state and less liable to accidents. He points out the precautions necessary to avoid some inconveniences which occur to those who operate badly, and particularly that of leaving a sufficient issue for the blood and pus. M. Percy, our associate, who has practised this operation since his youth, and who, as he informs us himself, has had the sad advantage of performing more amputations, perhaps, than any surgeon who ever lived, expresses, in his report, an ardent wish that M. Roux should make public his valuable improvements.

Two young surgeons of Paris, Messrs. Lisfranc and Champesne, have made known a method which they have contrived for the amputation of the arm in its upper articulation, one of the most difficult operations in surgery. They insert the instrument under the two pre-eminences of the omoplata called the acromion, and the coracoid apophysis; they cut immediately into the articular capsule, and finish the operation quicker than by any of the processes hitherto employed.

M. de Saissy, a Surgeon of Lyons, has obtained successful results in several cases of deafness by throwing injections into the cavity of the tympanum through the eustachian tube: he has transmitted a description of his method and a history of the cures which he has effected.

M. Orfila's Treatise on Poisons, the first volume of which we mentioned last year, has been continued, and the second volume submitted to the class in manuscript. It treats of the deleterious effects of preparations of tin, zinc, silver, and gold, as well as of the concentrated mineral acids, the caustic alkalies, phosphorus, cantharides, lead, and iodine; and contains an appendix on the counterpoises of corrosive sublimate and arsenic. The author herein carefully details, according to new and accurate experiments, the physiological effects of these substances, when swallowed or injected into the veins.

Milk, according to M. Orfila, is the antidote to the muriate of tin; sea salt to the nitrate of silver, or lapis infernalis; calcined magnesia to the acids, if it be employed instantly; the sulphate of soda and magnesia, or Epsom and Glauber Salts, when taken in large quantities and repeated doses, stop the effects of the salts of lead and barytes, and the acetic acid is the best remedy against the action of the alkalies.

M. Orfila proves that charcoal, which had been recommended against

against corrosive sublimate and arsenic, can be of no use: it is getting much to be made acquainted with the inefficaciousness of a remedy against mischief, when we have no time to try fruitless experiments.

M. Hazard has carefully informed the Institute of the progress and termination of a dreadful disease which carried off almost all the horned cattle in the provinces of France which were subjected to the horrors of war. It was a bilious and putrid fever, which, without coming from Hungary, nevertheless appeared wherever the bullocks of that country were driven in the rear of the armies. The strict interruption of all communication was the only efficacious preservative; but no remedy could save the poor animals which were attacked; happily, their flesh was wholesome, which diminished a little the loss of the proprietors. The same gentleman also read a notice of a disease which appeared among the cattle of the village of Rosny, and which had been taken for hydrophobia; he ascertained, however, that it was only a gangrenous sore throat.

It may seem invidious to make any remarks on the above memoir. On the physics, or as we usually term it natural history, we have nothing to object; but, whilst we acknowledge, that the French were somewhat more than a century ago our masters in surgery, and that their dexterity may still give them some advantage in manipulation, can we fail to express our astonishment at this mention of the hospital gangrene and flap operation, each of them accurately noticed in Britain more than twenty years past?

We cannot fail to express our disgust at the cruel manner in which the French physiologists continue their unnecessary experiments on living animals, merely to prove what was considered by the late Mr. Hunter, if not self-evident, at least proveable, by accurately tracing the actions as they occur in the various operations produced. To shew this we shall copy a passage from his last edition of Animal Economy.

"It may be remarked, that the motion of the whole intestinal canal, from the fauces to the anus, is naturally so slow, as not to be excited into quick actions. The food passes slowly along the œsophagus; and in a man, fluids which might be expected to act even by their own gravity, descend but slowly: yet I think we may be certain that the œsophagus has always a regular contraction; and that the lower parts must relax in progression, as it contracts above: so that no position of the body makes any difference in this action.

"Upon exposing the stomach in living animals, it does not appear much agitated or affected, even by being handled or otherwise irritated. The same thing may be observed in the whole track of intestines; and we find that when the fæces are expelled by the action of the gut alone, that the expulsion is slow; the stomach and rectum, however, can be emptied at once; but that is done by

the abdominal and other muscles. We know that the action of vomiting is performed entirely by the diaphragm and abdominal muscles; and we know that by the same action the contents of the rectum can be expelled. Neither is any other power required to empty the stomach in vomiting, these muscles being often capable of forcing the bowels themselves out of the abdomen, and of producing a rupture. It is not necessary the stomach itself should act violently to produce an evacuation of its contents; nor is it even necessary it should act at all: for the lungs themselves do not act in the least when any extraneous matter is to be thrown up; and coughing is to the lungs, what vomiting is to the stomach. The muscles of respiration are the active parts in emptying the lungs, and can act both naturally and preternaturally. The muscles of the thorax and abdomen do not act naturally on the contents of the abdomen, but often act preternaturally, producing an evacuation from its viscera.

"There is this difference in the action of the parts in coughing and vomiting: the cough is performed by the proper muscles of respiration, which are those of expansion, supported by the abdominal, while the diaphragm is passive.

"Vomiting is performed by the abdominal muscles and diaphragm; while those of inspiration are supporting this action.

"In coughing, the ribs are suddenly depressed, which diminishes the capacity of the thorax; and that the diaphragm may not be allowed to sink down and increase the capacity of the thorax, which would counteract the depressors of the ribs; the abdominal muscles at the same time act, which supports the diaphragm in its place, and probably may by this action assist in bringing down the ribs. To give as much force to this action as possible, the glottis is shut till the action is begun, and then the glottis opens instantaneously, which obliges the depressors of the ribs to begin the effort with their full action.

"The proper muscles of inspiration do not tire so soon in this action as the abdominal; for in violent coughing the muscles of the abdomen become sore.

"In vomiting, these actions are reversed. The muscles of the cavity of the abdomen act, in which is to be included the diaphragm; so that the capacity of the abdomen is lessened, and the action of the diaphragm rather raises the ribs; and there is also an attempt to raise them by their proper muscles, to make a kind of vacuum in the thorax, that the œsophagus may be rather opened than shut, while the glottis is shut so as to let no air enter the lungs. The muscles of the throat and fauces act to dilate the fauces, which is easily felt by the hand, making there a vacuum, or what is commonly called a suction; so that, when all these actions take place together, the stomach is immediately emptied.

"In violent coughing, we find that a kind of mixed action takes place; for, although the diaphragm has not acted, yet the stomach is so much squeezed as to discharge its contents; and it affects the diaphragm, which is often thrown into action, and brings

indigestion vomiting at the same time; therefore violent coughing pulls the stomach."*

The only apology we can make for the French physiologists is, that the above paper is not contained in the first edition of Mr. Hunter's Observations on certain Parts of the Animal Economy, nor in his paper in the Philosophical Transactions. Probably the last may be all that they have seen of his opinions on digestion.

A well arranged edition of all Mr. Hunter's medical works is much wanted.

On the Treatment of Fungus Cerebri; by JOHN and CHARLES WENZEL. *Translated from Journal de Med.*

To enumerate the external means of treating these affections is to take a very wide range in the field of surgical application. The taxis, an altered position of the head, bandages, fomentations, plasters, caustics applied to the integuments, incision, puncture, ligature and excision of the tumour, trepan, scarification, exsiccating, catheretic powders, and the actual cautery, have severally been recommended; in short, scarcely any thing has been omitted.

The mere handling of these tumours discovers to us that it is in general easy to return them into the cranium; but stupor, fainting, and convulsions, are often the consequence. When the roughness of the osseous ring surrounding the fungus produces irritation in it, the reduction may lessen the pain, and may often be promoted by a change of position; and, by means of bandages, the tumour has been confined within the skull, but it is a precarious procedure, attended with many inconveniences, and of very doubtful efficacy in any case.

An empiricism still more gross, established the use of different emollient, resolving, and irritant applications, each of which have had their trial. Ignorance has even gone the length of expecting advantages from methods of revulsion. Plasters have been applied to the soles of the feet, and blisters to the knees.

The employment of caustics to open these tumours, owes its birth to the erroneous opinion of their being cysts, whose abscission ought not to be attempted. This rash manœuvre has been followed by a hæmorrhagy that could not be restrained,† or by mortal convulsions.‡ To plunge a cutting instrument into their substances, was a resolution no less adventurous. This operation has more than once been fatal. In some, death has followed immediately;§ in others, at a period somewhat later,‖ even after favourable symp-

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* Animal Economy, p. 199.

† Kauffman, Dissert. de Tumore capitis Fungoso, post cariem cranii exorto. Helmstadii, 1743. Vid. Haller, Disp. Chirurg. Select. tom. i. p. 49.

‡ Legrand, Memoirs of French Academy of Surgery.

§ Ambrose Paré, Siebart, Chopart. Id.

‖ Rey and Philippe. Id.

toms were discovered. The symptoms which terminated in death were hæmorrhagy and convulsions, as in those treated by caustic.

This method, often pernicious, always inefficacious, when confided in *alone*, was much improved by the practice of applying the trepan in several parts of the circumference of the tumour, that it might be enveloped in its whole content. Marc. Aurelius Severinus* advises the removal of the bony parts which cover the roots of the disease, after which the remedies are to be applied. Marregues† also proposed the same practice a little time afterwards. Volprecht, in one case, confined himself to the operation, as it was not agreed what else should be done to the fungus;‡ and,§ by an incision through the scalp, discovered both the fungus and the foramen, through which it escaped: then he removed, by the trepan and cutting pincers, the portions of skull which confined the base of the disease, and succeeded in effecting the cure. Siebold‖ gives the same advice, and performed the operation himself; but its success was obstructed by the previous handling of the tumour, which burst, and occasioned profuse hæmorrhagies. The patient died in violent convulsions. The abscission of a part of the tumour, leaving the remainder to be destroyed by suppuration, cannot be recommended, having frequently occasioned inflammation of the subjacent membrane of the brain. Salzman¶ has seen this operation followed, in eleven days, by bilious vomitings, delirium, and death. Constant experience of the failure of a simple incision in the substance of these tumours, led to the attempt at complete eradication. For this purpose have been employed the knife and ligature, catharetics and caustic powders, and even the actual cautery. The removal by the knife was considered applicable to fungi of small size, encased, as Louis observed, in a duplicature of the dura mater.** In this case, as in those of Marregues and Volprecht, the operation, according to Louis, should consist in a simple incision of the enveloping membrane, and in the total recision of the fungus, without touching the internal lamina of the dura mater. Others have proposed to remove the portion of membrane covered by the disease, to prevent a return. If the excrescence is large, Louis advised, from Ambrose Paré,†† a ligature to be applied to its base. Pohl‡‡ has given the history of

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* De Medecina efficac. lib. i. part 2, cap. 3. Chirurgia quæ ad ossa pertinet.

† Memoirs of French Academy.

‡ Ibid.

§ Stolz, præside Sand, de fungo cerebri Regiomonti, 1700. Vid. Haller, Disputation. Chirurg. Selec. Tom. prim. Amstelodami, 1755. P. 172.

‖ Arneman's Magazin. vol. i. p. 402.

¶ Mem. French Acad.

** Ibid.

†† On particular Wounds, chap. xxi.

‡‡ Acta. Erud. Lips. ann. 1736, mens. mail.

a case

a case where the excision was not deemed adviseable, on account of an evident pulsation in it. The ligature was therefore employed. It was tightened daily. In fifteen days, the base of the tumour, which was thirteen inches in circumference, was reduced to one. Notwithstanding, the patient died in convulsions. The effect of escharotic remedies applied to excrescences which arise from injuries of the dura mater or cranium, has led to their employment in the real fungus cerebri, either after making the incision into the enveloping membrane, or later, when the knife or ligature has removed the greater part of it. It is the latter case, where the substances are not too active, in which they are most likely to be serviceable. Caustics employed in the same circumstances have always produced bad effects—fever, inflammation, violent pain, delirium, convulsions, and death. The actual cautery, still more powerful, is also more to be dreaded, on account of its action on the neighbouring organs, how efficacious soever it may be against existing hæmorrhages. Their employment is contra-indicated by the production of symptoms still more dangerous.

Proposed method of cure.—When the disease has become evident to the sight and touch, the operation is the only means on which we can depend, and especially when symptoms are present that threaten the life of the patient. The reduction can never be thought of unless when the tumour is irritated by the margin of the surrounding bone, nor should we persevere in this if the symptoms are increased by it.

In performing the operation, our incision should be made in the integuments sufficiently free to lay bare the whole of the diseased bone. When the disease is exposed to view, we discover the state of the margin of the bone, and the relative size of the tumour with the aperture. Often we see also the direction which the excrescence takes beneath the bone that covers it.

If the perforation of the bone is smaller than the base of the fungus, we must enlarge the opening by means of the trepan. If, on the contrary, we are enabled freely to discover the whole extent of the disease, we should proceed immediately to its extirpation. Experience teaches that in many cases this is easily effected by the want of adherence of the excrescence to the membrane, that it requires no effort; and in many cases, after the removal of the disease, the membrane is found not to be diseased. Where it is necessary to have recourse to excision, it must be done with great care not to injure the continuous parts. Caustics and the ligature are highly to be reprobated, for the reasons before-mentioned.

If the fungus does not merely adhere to the dura mater, but is included in its laminæ, a portion of this membrane must be removed. as Louis advises. The small portions which cannot be removed without violent means, should be left to the suppurative action, which procures their dissolution.

The best mode of repressing hæmorrhagy, whether this arises from the peculiar structure of the fungus, or from the diseased condition of the place which gives rise to it, is to terminate the operation

though a deformity of the spine, of the description to which I allude, always supposes caries of the body of the vertebræ, instances of a very considerable degree of caries, without any curvature at all, are by no means uncommon, particularly in the neck and the loins, from the horizontal direction of the spinous processes of those vertebræ; and I have a preparation of the dorsal vertebræ, in which, the intervertebral substance is wholly removed, and the vertebræ anchylosed, without there having been any elevation of the bent spinous processes, or distortion of the form of the spine; yet this case was accompanied by paralysis."

In most cases, especially when the disease is in the superior dorsal vertebræ, the author regards a commencing paralysis of the abdominal muscles as the great characteric circumstance and symptom.

"It is surprising how very early in the disease this symptom may be detected, when the attention is directed to it. It is sometimes described as an oppression of breathing, tightness of the stomach, a band tied round the belly, torpor of the abdomen, and by other expressions in different patients. It produces costiveness, retention of urine in a more advanced stage; in short, in whatever of these symptoms you examine it, some function of the abdominal muscles is recognized to be impeded. No author who has mentioned the disease, has omitted this symptom under some name or other, although it has never, I believe, been fully explained."

Some judicious observations occur on the mode of discovering affections of the spine, before the period of incurvation. The affected part is often ascertained by its greater susceptibility to the touch, and to the stimulus of heat. The author has mentioned a simple but ingenious method of applying the test of heat by means of a sponge wrung out of hot water, and carried down the spine; while passing over the part where the disease is going on, it frequently occasions an acute degree of pain.

In the treatment of the disease, Mr. Copeland considers caustic issues as less efficacious than we had been taught to believe by Mr. Pott. Complete repose in a horizontal position is the grand remedy; blisters and leeches are useful, and in some instances the issues may be used with advantage. These being the chief means of cure, particular symptoms will be combated as they occur, according to the judgment of the practitioner. Upon the whole, we have been interested in this treatise, which we consider well calculated to awaken attention to the subject. The art and aim of the surgeon are most usefully and honourably exerted in arresting disease, before it becomes incurable, or renders an operation unavoidable.

Welsh

Welsh Botanology.—Part 1st. A Systematic Catalogue of the Native Plants of the Isle of Anglesea, in Latin, English, and Welsh.—Part 2d. An Alphabetical Catalogue of the Welsh Names of Vegetables, rendered into Latin and English; with some Account of the Qualities, economical or medicinal, of the most remarkable. By HUGH DAVIES, F.L.S. Marchant. 1813. 8vo. pp. 256.

THE readers of the works of Pennant, of English Botany, of Turner and Dillwyn's Botanist's Guide, and the Linnæan Transactions, are too well acquainted with the merits of the rector of Aber, not to promise themselves much information from any work written by him on botany or zoology. We have examined his Flora Monensis with attention, and do not hesitate to recommend it as a valuable addition to botanical knowledge, and as peculiarly useful to all lovers of botany who travel into Wales. The following specimen will enable the reader to form a tolerable idea of the manner in which it is executed.

"77. VERBASCUM. Mullein. *Pannog.*

"1. V. *Thapsus.* Great Mullein. High Taper. *Tewbannog. Sincyn y melinydd.* vii. viii.

"2. V. *Phoeniceum.* Purple Mullein. *Pannogbrithgoch.*

"In a scattered old fence, on the right hand from Beaumares to the alms-house in 1803. In the following year it nearly covered acres of ground in an adjoining field. I have never seen it in a garden in the neighbourhood. vii. viii."

The latter half of the volume, in Welsh, consists of an introduction to the Linnæan system of botany, and an alphabetical catalogue of the British names of plants, "each explained by the classical generic name, and by the addition of the specific when proper, and the commonly received English name; and to each species, most remarkable for its qualities, either economical or medicinal, is subjoined an account of its uses or virtues, with the manner of preparing it, and its proper dose; all taken from the best writers on those subjects, intended particularly for the use of such of my countrymen as are so distantly situated, or so circumstanced, as not to be able, on every occasion, to apply to professional men." In executing this part of the work, he speaks of "great assistance having been obtained from the ancient manuscripts of the celebrated Meddygon (physicians of) Myddfai, the history of whom," he says, "is truly curious and interesting. The first of this family that we hear of was Rhiwallon, who lived in the beginning of the 13th century. He had three sons, Cadwgan, Gruffydd, and Einion, who were brought up to the same profession. They

were patronised by Rhys Grug, a prince of South Wales, about 1230, who bestowed upon them a situation, lands, and privileges, at a place called Myddfai in Caermarthenshire, that they might, without molestation or interruption, attend to the study of their profession, and administer relief to such as applied to them. It is very remarkable that their descendants pursued the same science, and practised at Myddfai, till the beginning of the eighteenth century. The last of the family did not practise, and died about 1740. Mr. Owen, in his Cambrian Biography, tells us that Rhiwallon and his sons drew up a full account of the practice of physic as then known to them; and that the original manuscript is still preserved in the Welsh Charity School in London, of which there are several old copies."

If any of our correspondents should find any facts in the medical part of Welsh Botanology, or in the manuscripts of the Meddygon Myddfai, with which the medical world is unacquainted, we shall be happy to be favoured with their communications.

We cannot conclude without expressing our hope that our author will favour us with a third part, consisting of an enumeration of all the plants which he has observed in his excursions into the mountainous region of Caernarvonshire, and the adjoining counties.

Medico-Chirurgical Transactions, Volume the Fifth.

The variety of subjects contained in these Transactions has obliged us to procure assistance from different gentlemen best acquainted with each, which must be our apology for the irregularity with which the articles are offered to our readers.

History of a Tubercular Eruption of a Syphilitic Appearance, but Curable without Mercury; by T. Bateman, M.D. F.L.S. &c.

This case presents us with one of those numerous instances in which the attempt at representing local diseases by the pencil not only fails, but may lead us into error. In the title it is called a tubercular disease, and for such it might have passed, had there been no coloured engraving to illustrate it. Excepting that it is an eruption, we know of nothing that it possesses in common with syphilis. Whilst this strange ambiguity prevails, it will indeed, as Dr. Bateman observes, be "difficult, if not impracticable, to delineate and describe intelligibly all the varieties of eruptions which assume a character resembling that of syphilitic affections

tions of the skin, but which originate, nevertheless, from the operation of mercury, or from some cachectic condition or conditions, not yet well understood; but the more this subject is investigated, the more the number of eruptions, actually found to be syphilitic, will probably be circumscribed. From the mere external character, unconnected with any history of the disease, discrimination is often impossible; but when the uniformity both of the external character and of the progress and concomitant symptoms, as in the eruption here described, is remarkable, it seems important to endeavour to fix them by the united means of the pen and the pencil. I have no other apology to offer for presenting this brief memoir to the Society."

In this instance, however, external character, if we may depend on the plate, was not likely to mislead any experienced surgeon.

Mr. T. FORSTER, of Guy's Hospital, has stated a case of Bubonocele, requiring a second operation five days after the first. The patient was sixty-three years of age, and ultimately recovered.

A case of Diabetes, in which opium produced an abatement of the disease, is communicated by Mr. MONEY, of the General Infirmary at Northampton. The dose was increased from one grain to twenty-four grains in the twenty-four hours, and very little inconvenience resulted from this large quantity. The patient, finding himself better, was discharged at his own request, and has not since been heard of; so that the only inference to be drawn from this case is, that during the use of opium, the symptoms of the disease were considerably relieved, which corresponds with our own experience; but we do not remember to have seen a single instance, in which the complaint was completely cured by the employment of opium, although we have seen it freely exhibited.

On the Muscæ Volitantes of Nervous Persons. By JAMES WARE, Esq. F.R.S.

Three cases of this disease are given in full detail. It is observable, that, although essentially the same, they all differ in some particulars; and it is probable no two are to be found precisely similar. The first was characterised by a great number of small yellow moats dancing before every object to which the patient directed her eyes, their magnitude varied with the distance. If the eyes were exposed to a strong

light, the air appeared full of small particles of quicksilver, in perpetual motion; among which were three or four darker coloured than the rest, which were as large as small pease, and seemed to turn round on their axis: sometimes they appeared twisted together in irregular figures, sometimes like the flue that is swept from bed-rooms. If she looked at the sky for two or three minutes, and then turned from it, her eyes flashed fire for the same space of time; looking at the sun, it appeared to be multiplied into four or five, which soon turned green, and were visible though she shut her eyes. The affection was found, on minute examination, to exist only in one eye. Twenty-five years after the commencement of the malady, they were still occasionally perceived.

Another patient complained of a considerable number of intersecting moats or beams which floated continually before his eyes, but particularly his right. Sometimes they were nearly spherical, sometimes like long knotted lines, and occasionally like a series of spherical knots, varying in number, magnitude, and opacity, sometimes undulatory, and perceived even when the eye-lids are closed. When objects were viewed at a distance, they appeared as if seen through a pane of glass sprinkled with water. He had never suffered from head-ach or pain in the eyes, though at the commencement had violent heat in them. He was short-sighted. After twelve years, he was seen by Mr. Ware a second time, when he retained the sight of both eyes, though the moats occasionally appeared in a bright light. He continued short-sighted, and used a concave glass.

In a third, several dark-coloured moats appeared before the eye, more plainly perceived when she went from one bright light to another, the intermediate space being dark; as, for instance, when she removed from looking through one window in a room to look at another. When first noticed they were seen in a bright light, but after a short time in the shade, though becoming much plainer and more numerous when the light was strong. When the lids were shut, dark spots were seen before both eyes, but not in lines till the lids were opened. She suffered no pain in the eyes; was very nervous, her spirits easily agitated, and had continually a rumbling noise in the ears. After several years the moats had not wholly disappeared. At the latter period of the complaint, she discovered an inability to read with the left eye, which was formerly short-sighted. On examination, the scene was found reversed; it had become presbyoptic, and the patient saw with a *convex* glass 36 inches focus;

focus; but, curious to relate, the right eye continued myoptic, and required a *concave* glass for distant objects.

It seems that in all these cases the patients could distinguish the most minute objects, notwithstanding the confusion of the various appearances before the eyes. The pupils were dilatable: in the first and last of them, considerable nervous affection accompanied; in the two last there was short-sightedness; in the last this symptom was unaccountably changed for presbyopia in one eye, while the other was oppositely affected.

It has commonly been supposed that these moats are certain symptoms either of an incipient cataract or incipient gutta serena; and their occasional appearance with these disorders confirms the apprehension. To remove this opinion, Mr. Ware refers to the cases related in the Memoir, and to a brief description of cataract and gutta serena, which he has subjoined: from this account we select the following particulars, though they must be well known to every practitioner acquainted with diseases of the eyes.

The appearance of the cataract is *rarely sudden.* It begins by a confusion in seeing small objects, as though they were covered by a mist, which does not appear in *detached points*, but extends universally. Vision is more distinct in a dim than in a strong light, from the greater dilatation of the pupil.

After extensive inquiry, Mr. Ware cannot discover that the patients had been affected with muscæ volitantes, unless the opacity has been preceded by internal inflammation of the eye, or great muscular debility. The internal inflammation, if fully sufficient to occasion such *an alteration in the structure of the choroides*, as may, by making more or less of unequal pressure on the retina, excite the sensation of moats above described. In these, as in the cases which have been preceded by nervous debility, the moats are more perceptible when the light is strong; and where the sight is wholly extinguished, the appearance of moats ceases with it.

The diagnosis of gutta serena, given in this memoir, seems hardly to be borne out by experience. Are there no cases of this affection in its complete form, wherein the motion of the iris is preserved? When complete, Mr. W. observes, "the pupil is in general much dilated, though it may be hindered by different circumstances, particularly by the adhesion of the posterior part of the iris to the capsule of the crystalline humour. But, whether the pupil be contracted or dilated in size, it is always unchangeably fixed both in a weak and strong light; and this forms the characteristic

teristic difference between the gutta serena, so alarming and too often destructive to the sight, and that comparatively harmless affection of the eye which occasions muscæ volitantes. However numerous these moats may be, and however distressing to the persons who behold them, if the power of the pupil to dilate and contract in different degrees of light remain perfect, and if the eye be able to distinguish minute characters as accurately as it did before the moats were perceived, it may be safely inferred, not only that the optic nerve retains its due degree of sensibility, but that the choroides is uninjured, since the *iris is a continuation of the membrane*, and cannot be acted upon if in a state of disease, *or if the connection between the retina and choroides be not perfect.*"

This is, certainly, a very useful paper, and particularly desireable, as containing consolatory information from an experienced practitioner on a complaint so frequently beyond the reach of art. At the same time we are obliged to confess, that we are by no means satisfied with the anatomical remarks at the conclusion of our last quotation.

Account of an Epidemic Fever, which occurred at Gibraltar, in the Years 1804, 1810, *and* 1813, *taken from Official Documents, Military and Medical, and from the Communications of Joseph D. A. Gilpin, M.D. Deputy-Inspector-General of Hospitals.*

Whatever relates to the doctrine of contagion is important, and to the present history the most serious respect should be paid, on account of the manner in which the inquiry is conducted, the means of information possessed by the reporters, the recency of the events, and the return of the epidemic three times in the space of ten years. We shall first offer the general remarks given at the close of the paper, afterwards our own, and then point out the few particulars in which we conceive the report deficient.

"The most obvious and important remarks, arising out of the preceding documents, are—

"I. The belief of the principal medical officers in the infectious nature of this epidemic.

"II. That the prevalence of it, like that of the plague, is limited to a particular season of the year. The season at Gibraltar, is the months of September, October, and November. The number of deaths in December is considerably above the average of the rest of the year, but they are chiefly cases in which the seizures must have been in the preceding months; for it appears from Mr. Fraser's table, that the number of new cases diminished rapidly even in November.

"III. The

"III. The various degrees of mortality in the sickly years, as compared to each other, and as compared to the years of ordinary health, are exhibited in the tables. In the year 1804, the proportion of annual mortality taken on the average strength of the garrison, was 1 in 5.4. The whole number of deaths in this year was 548, of which only 44 occurred in the nine months exempt from the epidemic. In the year 1810, the proportional annual mortality on the average strength of the garrison was 1 in 16.1. This was more equally diffused through the year, imputable, no doubt, to the presence of those regiments which had served in Walcheren. The whole number of deaths was 307, of which 187 occurred in the nine months which are not liable to the epidemic. In 1813, the proportional annual mortality on the average strength of the garrison was 1 in 10·6. The whole number of deaths was 326, of which 260 occurred in the three epidemic months.

"IV. It appears, from the reports of mortality in the three years of ordinary health, that in the three months to which the epidemic is incident, the mortality is not greater than in the other months of the year.

"V. That the average mortality of the years of ordinary health is 1 in 48.4. This is a rate of mortality considerably greater than what takes place in the same class of subjects in England; for, by the returns of population in 1811, the rate of mortality there in all ages was 1 in 49. And it appears by calculations, instituted with a view to ascertain the value of lives in granting annuities, that the mortality of persons in the prime of life is about one half of what it is on the whole population of all ages. Is this difference owing merely to climate, or in part also to some peculiar circumstances in the situation of this garrison?"

To the first remark we should reply, why have we not the report of those medical officers who do not believe in the contagious property of the disease?

2dly. If the disease only exists in the months of September, October, November, and December, and if "free ventilation has a tendency to check it" (see page 316), why is not free ventilation attended to every autumn, in order to attempt at least the prevention of an epidemic which is known to be lessened by such a measure?

3dly. If the officers were affected, it must have been by receiving the effluvium from an individual, or by inhaling an unwholesome atmosphere. If the first, we should expect that all their family, or at least all who entered the chamber, would have been affected. If they were not, what should make the effluvium from an officer under an epidemic less deleterious than from a private or a townsman?

We offer these hints for the consideration of others; at the same time adding, that, if the disease is contagious at all,

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it is not contagious in the manner of small-pox, measles, and scarlatina.

The next paper that claims our notice is entitled, "Further Observations on Cataract;" being a continuation of those contained in the fourth vol. of the Transactions. Mr. Travers proceeds to offer additional remarks on certain appearances, by a minute attention to which, he conceives, the various textures of cataract may be distinguished. "That a practical value attaches to these distinctions in selecting, and in the mode of conducting, the operation," must, it is presumed, be readily admitted; and, from the opportunities which the author has enjoyed of frequently inspecting cases of this disease, we entertained the hope of finding much novel and valuable information; but, after a careful perusal, we do not discover any essential improvements on what may be collected from preceding writers on the same subject. Indeed, we rather concur in opinion with some of the best authors on this disease, that the most experienced practitioners have been not unfrequently deceived in regard to the actual nature and consistence of the opake lens; and we are best pleased with Mr. Travers, when he candidly acknowledges (p. 394) "I have myself caused such disappointment, by mistaking the nature of the cataract." We shall, therefore, be excused from making any quotations in confirmation of our sentiments.

We cannot help lamenting, that, in the enumeration of the different kinds of lenticular cataract, and their respective diagnostic symptoms, (which he has at least the merit of having compressed into one point of view,) Mr. Travers has wholly overlooked one species, usually called the **black* cataract. Has his silence been the effect of want of opportunities to witness that form of the disease; or does he, with some others, altogether discredit its existence? At all events, we are sorry he has not favoured us with his ideas on the subject, as this form of the disease is the only one at all ambiguous respecting the existence of cataract, and its diagnostic distinction from amaurosis.

The following passage is so much to the purpose, and so well expressed, that we have pleasure in giving it insertion.

"The cataracts of infants and children are either fluid or flocculent; of young adults, usually of a flocculent or soft caseous consistence; of old persons, more frequently firm, caseous, or hard.

* For the *symptoms* of this species of cataract, we refer our readers to the last Number of this Journal, p. 311.

Analogous to this, is our observation of the texture of the healthy lens, which is semi-fluid in children, jelly-like in adults, and gum-like in old age."

Although this is the usual condition of the lens in a state of opacity, or of health, at the periods of life mentioned, and as such ought not to be lost sight of in forming our diagnosis, still we should ever bear in mind, that under diseased action the crystalline is apt to exhibit a great variety of appearance, dependant upon its consistence; and, that whatever be its nature when the opacity is once fully established, the complaint rarely alters its primary character; or, in other words, the fluid cataract never becomes, as was erroneously supposed by the ancients, of a firm consistence, nor does the solid liquify into the fluid species.

The author's directions on the mode of depressing the solid cataract, appear, from what little knowledge we have on the subject, clear, and agreeable to the description of our best writers on couching. His remarks, also, on the immediate effects of this operation, are equally just and perspicuous; and the reasons he assigns for this process being better adapted to those cases in which the capsule is opake, than when it remains transparent, are no less satisfactory. But the picture Mr. Travers draws of the unhappy consequences which almost always, according to his experience, supervene upon couching, is truly alarming, not to say frightful, and, we would willingly hope, greatly overcharged; at least, we are constrained to form this opinion, unless we deem all that has been written by Callisern, Richter, Pott, Scarpa, and the judicious Hey, as entitled to no credit. We are therefore forced to suppose that all the ill consequence of the dislocated lens pressing upon the sensible retina, or any of the highly vascular tunics of the eye described by Mr. Travers, must have occurred under some attempt at improving the operation which Mr. Travers has had frequent opportunities of witnessing, as we cannot admit that such consequences often follow, when the operation is skilfully performed. Such dreadful effects from "the opake lens being wedged in the vitreous humour," is surely a gratuitous assertion. Are there not many instances on record in which the entire crystalline has been found imbedded in this situation *many years* after the operation of couching has been *successfully* performed, and without exciting any of those formidable disorganizing symptoms which the author dreads, and describes with so much feeling and apprehension? We are therefore compelled, after comparing what Mr. Travers has written, with the experience and declarations of the most celebrated sur-

geons, to conclude, that he must have been unfortunate in his practice with the needle, and hence has become so strenuous an advocate for extraction; for we will not permit ourselves to suppose, that he can have any wish to frighten all excepting professed oculists from undertaking the cure of cataract.

After these long remarks, we must only briefly glance at the remainder of Mr. Travers's paper. We cannot help expressing our surprise that the mode of forcing the hard cataract into the anterior chamber of the eye, should be mentioned without referring to a very old record of the accident which proved the origin of the operation by extraction. We have, indeed, been told that a rival practitioner acquired his honours by reviving this operation. But it is painful to dwell on "an old tale which every school-boy knows."

The remarks on the evacuation of the contents of the soft cataract through a puncture of the cornea, are a repetition of the method previously recommended by the late Mr. Gibson, of Manchester, whose premature death must be deeply lamented by every friend to science and humanity, and to the maintenance of whose claims we should be ashamed not to evince a proper zeal. The concluding directions relative to the mode of making the incision through the cornea, and the advantages which result from forming it of a sufficient size, are, we think, a satisfactory illustration and confirmation of what is inculcated by the best writers on extraction.

Mr. Travers gives, under twelve short heads, a summary of the principal contents of his two papers on cataract. Upon the whole, though we are disposed to think favourably of this communication, yet we cannot help objecting to the dogmatical manner in which the subject is treated; and should Mr. Travers think proper, at any future period, more fully to deliver himself upon this disease, which still admits of a great deal more without fear of exhausting it, we trust he will avail himself of our hints.

Report of the principal Natural Diseases that have prevailed among the Children of the Royal Military Asylum at Chelsea, from its first Establishment in 1804, *to the* 1st *of January*, 1814, *including a period of Ten Years, with some Remarks thereon.* By P. Macgregor, Esq. Surgeon to the Institution, &c.

The natural diseases included in the above title are "small-pox, measles, hooping-cough, chicken-pox, &c. which are so defined, as they are known to affect most of our species once

once in their life, in every country." The definition is so satisfactory, that it may seem captious to make any objection to the term. "Natural diseases," however, does not convey a distinct meaning: we should, therefore, prefer "those contagions which produce their effect in all climates, in every season, and only once in a person's life."

The object of the paper is to remove a prejudice with some, that since the introduction of cow-pox, measles, hooping-cough, and scarlatina have been more severe, especially with such as have undergone vaccination. The result of the author's observations agree with those of Drs. Willan, Adams, and Mr. H. Field, that these contagions are usually mildest in the summer months. He, therefore, seems to admit the propriety of Dr. Adams's hint,* that, instead of constantly removing children from such contagions, by which they only gain a temporary security, it might be better, whenever the epidemic is mild, to expose them, and thus acquire a permanent relief from one of the many solicitudes to which that age is exposed. A table is added, which satisfactorily proves that vaccination does not produce in the constitution a greater liability to death from any of the other contagions.

An Appendix is added, by Dr. Henry, of Manchester. By referring to Dr. Percival's tables, and also to the last registers from the collegiate church at Manchester, it would seem that the number of deaths from measles, compared with the general mortality, had considerably increased. This is further confirmed by the register of St. John's in the same town; and if the compilers of the paper had taken the trouble of comparing our London Bills of Mortality, the scale of which is more certain in proportion as it is larger, they would have found the increase much greater. A reason is, indeed, offered for the increase in the confined tables produced, but to us unsatisfactory.

The greater mortality from the measles is easily accounted for without any implication against vaccination. Since the almost entire exemption from small-pox in that class of society to whom the preservation of their offspring is the most important, a greater number of children is reared, all of whom live to be exposed to the measles. Hence the mortality from small-pox being superseded, all who formerly died of that complaint before they were exposed to the measles, should be deducted, in order to give any accuracy to the statement. We might go further, and remark, with

* See his "Epidemics."

Drs. Heberden* and Adams,† the greater number of infants now reared by the improved condition of the inferior subjects in the kingdom. As the latter of these writers remarks, all those who died at an early age in number beyond the present, may, probably, be deducted from the average, as it rarely happens that children take the measles before one or even two years of age. To conclude, it is impossible accurately to ascertain how many are thus reserved to pass through the measles, but it is certain that vaccination, and the improved condition of the labouring class of society, has much increased that number of late years: and that if we take the general mortality, without allowing for the above causes, we shall find the same increase in many other diseases which cannot be suspected of the most remote connection with vaccination.

Expériences sur la Digestion dans l'Homme, présentées à la premiere Classe de l'Institut de France, le 8 Septembre, 1812; par A. Jenin de Montegre, Medicin de la Faculté de Paris, Redacteur-General de la Gazette de Santé; *suivies du Rapport des Commissaires Nommées par l'Institut.* 8vo. pp. 55. Paris, 1814.

Notwithstanding the numerous experiments made by Reaumur, Spallanzani, Steevens, Gosse, and other physiologists, to ascertain the nature of digestion, the subject is still involved in a considerable degree of obscurity. Doubt yet prevails respecting the precise quality and operation of the gastric juice, its existence is even disputed, and the doctrine of putrefaction and of fermentation has still some advocates. Some physiologists contend, that the gastric juice alone is the solvent of alimentary matter, whilst others suppose a mixture of saliva with that fluid essential; others again insist on the presence of bile; and the spleen is also considered, by some as assisting in the important process.

A short account of Dr. Montegre's experiments was presented by us some time ago, in our department for intelligence. We have since been favoured by that gentleman with the treatise now before us, which contains a complete account of his progress in this interesting inquiry. He possesses, it seems, the faculty of spontaneous vomiting; and thus enjoys a rich opportunity for making discoveries on the subject of digestion. By exercising this rare power when fasting, he is enabled to obtain gastric juice, and he

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* Philosophical Transactions.

† Inquiry into the Laws of Epidemics.

can produce, without much effort, the food which he has swallowed at every period or stage of digestion. The object which he proposed in the inquiry was to determine what is the nature of the gastric juice, what action it performs in digestion, and, what change the aliment undergoes in the stomach. As the detail of the experiments would occupy too much space for our limits, we must be content with giving the conclusions which the author has drawn from the facts related.

It appears then, first, that the gastric juice, or the fluid which is almost always found more or less abundantly in the stomach fasting, is nothing else than saliva.

Secondly, that we cannot, consequently, regard the gastric juice as a solvent *sui generis*, of which the particular properties render it fit to prevent the putrefaction of animal substances, and still less to effect a complete digestion independently of the action of the stomach.

Thirdly, that the acidity frequently present in that juice is caused by the changes which the saliva has experienced from the stomach, changes similar to those that the alimentary matters undergo.

Fourthly, that the passage of alimentary matters to the acid state is a natural result of the action of the stomach upon them, and ought necessarily, for intensity, to depend on their chemical composition, which more or less facilitates this acidity, and in the individual dispositions of the stomach itself.

Fifthly, that the saliva and gastric juice, destined themselves to be digested, are chiefly useful in separating and liquifying the solid aliment, and communicating by their mixture the first degree of animalisation.

To these conclusions, which the author conceives are fairly deduced from the facts which he has observed, he adds, as a simple probability, waiting till additional facts can demonstrate it incontestibly, that the action of the stomach in digestion is reduced to a vital and elective absorption. The absorbent vessels, by virtue of their particular sensibility, seizing upon certain portions of the alimentary matter, abandoning others, in the same manner as it happens in the whole of the alimentary conduit, where the nutritive particles are continually seized by the vessels in the middle of the fœces destined to be ejected.

The author has not yet been able to ascertain the exact nature of the acid so frequently present in the gastric juice, but is disposed to consider it as acetic acid. He announces his intention of losing no opportunity in prosecuting the enquiry.

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In the report of Messrs. Berthollet, Cuvier, and Thenard, which accompanies the treatise, these philosophers admit that the experiments of Dr. De Montegre have thrown light on the nature of the gastric fluid; but they do not accord with his explanation of digestion depending on a simple separation produced by an elective absorption.

The cause of digestion then still remains to be ascertained; and the discovery of Dr. De Montegre amounts to this, that saliva and gastric juice are similar in their nature and action on alimentary matter. Food exposed to saliva under similar circumstances, will be acted upon precisely the same, as if subjected to gastric juice. But we may be allowed to doubt whether the stomach of the ingenious author, which so readily affords him gastric liquor or food during the process of digestion, is in a healthy condition, and whether the fluid he obtained was, in fact, pure gastric juice. If the two fluids are precisely identical, it is probable that gastric fluid is not a secretion peculiar to the stomach, but merely saliva which is continually passing into it from the mouth, and sometimes, as is well known, in considerable quantity. At all events, we consider the enquiry quite open; much remains to be ascertained; we cannot rest satisfied with experiments made on one individual. We therefore hope, that Dr. De Montegre will pursue his researches, and that physiologists of our own country may be induced to take up this very interesting subject.

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

OFFICERS and Council of the Medical and Chirurgical Society of London: elected March 1st, 1815.—*President*, HENRY CLINE, Esq. F.R.S.—C. R. Aikin, Esq.—Thomas Bateman, M.D. F.L.S. Librarian.—Charles Bell, Esq. F.R.S. Ed.—George Birkbeck, M.D.—Sir Gilbert Blane, Bart. M.D. F.R.S.—John Bright, M.D.—Benjamin C. Brodie, Esq. F.R.S.—Astley Cooper, Esq. F.R.S. Treasurer.—Alexander Henderson, M.D.—William Lawrence, Esq. F.R.S. Secretary.—Sir James Macgrigor, M.D. Vice-President.—Alexander Marcet, M.D. F.R.S.—James Moore, Esq.—John Pearson, Esq. F.R.S.—P. M. Roget, M.D. F.R.S. Secretary.—A. R. Sutherland, M.D.—H. L. Thomas, Esq. F.R.S. Vice-President.—James Ware, Esq. F.R.S. Vice-President.—Stephen Winthrop, M.D.—John Yelloly, M.D. F.R.S. Vice-President and Treasurer.

Apothecaries' Bill.—The *Society of Apothecaries of London*, incorporated by Charter granted in the reign of King James the First, having introduced into Parliament a Bill for enlarging the Charter

Charter of their Society, and for better regulating the practice of Apothecaries throughout England and Wales, beg permission to give a brief statement of their design, and of the motives which have induced them to undertake it.

While the church, and the profession of the law, in all its departments, have been fenced round with such restrictions as are calculated to prevent improper persons entering into them, the medical profession alone has been left entirely unguarded; so that every description of empirics, and of illiterate, uneducated, and uninformed persons, are permitted to undertake the cure of diseases; to the discredit of the profession, the detriment of the regularly-educated practitioner, and, what is of infinitely superior importance, to the incalculable injury of the community, particularly of the lower classes of the people.

These evils have long been the subject of serious consideration; and, under a strong impression of their importance, an Association of the Apothecaries, and Surgeon-Apothecaries of England and Wales, was formed about three years ago, for the purpose of applying to the legislature to obtain a redress of those evils. Under the sanction of this association, a Bill was introduced into parliament in the session of 1813. This Bill was so extensive in its nature, and embraced so great a variety of subordinate objects, that it was considered parliament could not entertain it, and it was therefore withdrawn. Among other objections to this Bill, was that made to it by the Royal College of Physicians, who, though they approved of the general principles upon which the Bill was founded, were of opinion, that the powers contained in it should be vested only in the Society of Apothecaries of London, as established by charter.

This society, convinced of the evils already stated, felt itself imperatively called upon to take them into its serious deliberations; and having carefully examined the charter above-mentioned, was of opinion that it contained nearly every thing that was requisite to the removal of these evils, provided its powers were sanctioned by the legislature, extended to the kingdoms of England and Wales, and such few additional powers given as would render it more applicable to the present times.

With this view the present Bill was formed, and the clauses contained in it have been submitted to the Royal College of Physicians, one of which has been introduced at their recommendation.

The principal design of this Bill is to secure to the public, in future, a succession of well-educated and properly-qualified apothecaries, which, when it is considered that the lives and health of more than nine-tenths of the community are intirely under the care of this branch of the medical profession, must be universally allowed to be an object of the highest importance.

The means by which this design is proposed to be carried into effect, is by an apprenticeship for a moderate term of years, succeeded by a suitable attendance on the practice of an hospital or regular

regular infirmary, and accompanied by testimonials of a sufficient medical and classical education, and of good moral conduct.

To ascertain the qualifications of the apothecary in these branches of science, a Board of Examiners is to be appointed by the Society of Apothecaries, who are in conjunction with the President of the Royal College of Physicians, or some other fellow or fellows appointed by him, to examine such persons; and, if approved by them, to grant them certificates of qualification, without which no person can in future be permitted to practise as apothecaries.

In this Bill every retrospective effect is particularly guarded against, not only with respect to persons already in practice, but also as it relates to those who have already commenced their medical studies, so that no possible injury can occur to either of them.

It is obvious, therefore, that its beneficial effects will be only gradual, yet there can be no doubt but a very moderate number of years must produce a very decided advantage to all classes of the community, but particularly to those of the middling and inferior ranks, who are at all times much exposed to the arts of ignorant and unprincipled men.

The examination of the shops of apothecaries, to ascertain the quality of their medicines and drugs, has been long practised, in a certain degree, in the metropolis. Another object of this Bill is to extend and facilitate this practice, the great importance of which is too obvious to require illustration.

It may possibly be objected to this Bill, that the necessity under which it puts every person proposing to commence business as an apothecary, to visit the metropolis, for the purpose of examination, must be viewed as an unreasonable hardship; but when it is recollected that London is the grand source of this species of medical education, insomuch that much the greater number of medical students have occasion, upon that account, to come to it from all parts of the kingdom, this objection will be greatly diminished; and, indeed, may be esteemed intirely removed, when it is considered that every attorney in the kingdom is liable to the same inconvenience, being obliged to take a journey to London for a similar purpose of admission to practice.

It may likewise be objected, that this Bill is only a partial remedy for the evils it professes to remove, having no reference to two other important branches of medical practice; namely, surgery and midwifery: but of these the Society of Apothecaries could not take cognisance. The superintendance of the public health, in these particulars, rests with others, with whom it is neither the province nor the wish of the Society of Apothecaries to interfere.

The Baron Percy, Member of the Institute, Professor of the School of Medicine at Paris, Inspector-General of the Army, &c. has lately composed a Memoir on the question, whether a Living

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Part having been completely separated from the Animal System, is susceptible of being re-united to it?

It seems, that about the middle of the last century, GARENGEOT, surgeon of Paris, a man of character and high reputation, published in a Treatise on Surgery, the following fact: Two soldiers coming out of a tavern, fought in the street; one of them seized with his teeth the nose of his comrade, bit it clean off, threw it in the kennel, and trampled it under his feet. Whilst the wounded man pursued his adversary, the piece of nose was picked up, washed in a fountain, and thrown into the shop of the surgeon Gallain, a friend of Garengeot. When the soldier was brought to him a few seconds afterwards, the detached nose was cold and livid. However, according to Garengeot, after it was washed and warmed in hot wine, and the wound being in like manner cleaned, the nose was returned to its place, and supported by sticking plasters and a bandage, with so much success, that in four days it had firmly united. Notwithstanding the high character of those two surgeons, the account was deemed false and absurd; indeed, it was thought so ridiculous, that Garengeot entirely lost his character. From some other cures of this nature being recorded, the Baron Percy determined to pursue this enquiry. He dwells at some length upon the facts recently stated by Dr. Balfour, and recorded in our Journal, and repeats the ancient stories from Taliacotius, &c. From his own experience, he has proved, that in cases where the nose was divided and hung by a slip of skin, the re-union and cicatrization were easily and completely effected; but when the separation was total, the operation even under the most favourable circumstances, was ineffectual. Messrs. Percy and Richerand attempted to join the extremity of the nose of some dogs which they had carefully cut off; but they did not succeed in the experiment. They were more fortunate with the ears of animals, as in the rabbit, sheep, &c. For this purpose, they envelloped the ear, after it was re-applied, in a paste-board box, and plastered the wound over with pitch of a moderate heat. M. Percy concludes his Memoir, by relating an experiment which he attempted jointly with M. Willaume, Surgeon-in-Chief of the French Army. A portion of the entire diameter of the tibia of a dog, about half an inch long, having been removed, was replaced by a cylinder of platina intended to prevent the shortening of the limb. The whole was envelloped in pitch, and bound up with a proper dressing. At the end of some days, a bony incrustation had begun to form on the cylinder, but the dog escaped, and the experiment was not repeated.—*Gazette de Santé.*

The Journal de Medicine for December, gives another account of spontaneous combustion in a defunct drunkard. As such subjects are at least as common in London as in any other metropolis, we shall wait till we meet with a similar combustion before we give our opinion on the subject.

The Medical Society of Marseilles have sanctioned, by their authority, the opinion that measles may occur a second time in the same individual.

Case of Inflammatory Catarrhal Head-ach immediately cured by the Moxa applied to the Head; by M. Bodson, D.M.P.—A Polish servant laboured under catarrhal affection, complicated with icterus, and with a violent pain at the lateral, left, and anterior part of the head, so that he could scarcely remain a few moments in one posture; the pain was so intense, that it was soon considered the principal object of attention.

The patient was stout, young, and strong; he expectorated much mucous. The left eye was closed and watery as in common catarrh; raising the eyelid, *the pupil was found contracted, the conjunctiva inflamed;* the pain was principally in the bottom of the orbit on this side, and towards the temple, and propagated itself to the top of the head. He experienced troublesome pulsations in these parts, and the least pressure was insupportable; the pulse was slow, full, and hard; the surface of the body cold, and especially the hands, whose nails and fingers had acquired a livid tint. He was bled largely, purged and vomited with relief; but the following morning the pain returned. After much ineffectual treatment, I determined on applying moxa to the principal seat of the pain. No sooner had the fire reached the skin than the internal pain was removed; an abundant perspiration diffused itself over the body; the pain appeared no more. The author does not agree with Ponteau and De Haen, in the apprehension of danger from the moxa applied to the head.

Margaret Austin, widow, having had four children, died in the neighbourhood of Kilkeel, in Mourne, county of Down, on Friday, January 27, 1815, in the 51st year of her age. She had long laboured under a painful and tedious disease with considerable fortitude. Early in the year 1805, she perceived a small tumour in the lower part of the abdomen, sometimes attended with considerable pain, and which continued progressively to increase until the 28th of October, 1812, at which time she underwent an examination before the medical gentlemen of that town. It was then ascertained, that the tumour or excrescence had increased to an amazing size, nearly of a globular form, was moveable, and strongly attached to the uterus, or some of its neighbouring internal parts. A very considerable quantity of extravasated serum was found collected in the abdomen, and the operation of the paracentesis being found necessary, it was performed, by which eighteen quarts of water were then taken off, perfectly inoffensive in its smell, and tolerably clear. The operation was repeated at intervals, when necessary, for fifty-eight times, in the space of two years and three months, during which time the amazing quantity of 1276 quarts, or 312 gallons of water were drawn off. For the

the most part of the time she enjoyed tolerable health, eat moderately, slept, and seldom was much troubled with thirst. The day after her death, the body was opened by Messrs. Adderly and Graham, the medical gentlemen who had attended her regularly through the course of the disease. On the tumour being removed from the body, it weighed twenty-pounds and a half, avoirdupois weight; it was nearly of a globular form, somewhat depressed on the top, and perfectly smooth. On the back part, near to its top, it was slightly attached to the mesentery; but at the bottom, from which it first originated, it was strongly joined by broad ligaments and large blood vessels to the uterus, falopian tubes, and the internal extreme part of the vagina; the ovaria appeared to be nearly obliterated. On dissecting the tumour, it appeared to be mostly composed of a hard cartilaginous substance, greatly resisting the knife, and interspersed with innumerable ramifications of small blood vessels, which gave it a most curious appearance. A very considerable portion of the top of the tumour was in a state of putrefaction; and from its long confinement, and in some measure being concocted by the heat of the body, the putrid matter had the appearance of coagulated milk, or the whites of boiled eggs. The uterus, although strongly adhering to the tumour, was of a natural size, and free from disease; all the other viscera of the abdomen appeared sound.

We have to lament the death of that celebrated and truly deserving character, James Ware, Esq. of Bridge-street. This gentleman, who has contributed so much to improve the practical part of surgery in his department as an oculist, was not more distinguished as a surgeon than for his enlarged philanthropy. In partnership with the late Mr. Jonathan Wathen, he was probably the first English surgeon who separated this branch of the art from general practice. When Mr. Phipps, grandson to Mr. Wathen, became of an age to take part in the practice, the two former separated, Mr. W. uniting with his grandson. It was soon found that the town was large enough for all three. The partners removed to the west, and Mr. Ware continued for the remainder of his life in the city, with a country house at Turnham Green, which enabled him to attend his patients in the west without inconvenience. Apparently of a delicate frame, a premature old age assailed him, though constantly prudent in every part of his life. We shall, in our next, give a more detailed account of his history, but cannot conclude these few remarks without mention of his exemplary liberality to the Society for the Relief of Widows and Orphans, of which he was among the early founders, and for several years president. Besides his customary donation, he presented them during life with a fund, the interest of which was divided among such of the directors as attended the quarterly courts with punctuality, and staid the whole time of necessary business.

We have in one of the newspapers a remark which would lead

us to suppose, that Mr. Ware had relinquished the use of laudanum altogether in inflammation of the eye. As his experience increased, it is probable that he varied his remedies; but the vinous solution of opium was, we believe, always retained.

It is with much concern that we announce the death of SMITHSON TENNANT, Esq. F.R.S. and Professor of Chemistry in the University of Cambridge; a man in whom genius, talents, and virtue, were united in their highest forms. Although his industry was checked by a frame naturally weak, and a languid state of health, his acquirements in science were general, in chemistry most profound, with a correctness not exceeded by Woolaston.

The circumstances of Mr. Tennant's death were most afflicting. He was returning from France, where he had been several months, and was waiting at Boulogne for a favourable wind. He had actually embarked on Wednesday, the 22d of February, but the vessel was obliged to put back; and it was determined, if the weather should be tolerable, to make another trial in the evening. During the interval Mr. T. proposed to a German officer of distinction, whom he had accidentally joined on the road, and who was also going to England, to ride with him to Buonaparte's Pillar, near Boulogne. In returning he deviated a little to look at a fortification near the road. But as they were attempting to pass a draw-bridge, which, owing to some neglect, was not properly secured, the bridge gave way, and they were precipitated into the trench. The officer fortunately escaped without any serious hurt; but Mr. Tennant was found fallen under his horse, and was taken up speechless, his skull and one of his arms being considerably fractured. He was conveyed with difficulty to the hospital at Boulogne, as the nearest and most convenient place to receive him, and expired in half an hour. His remains were interred at Boulogne.

The editors feel greatly obliged by communications they have received from two learned correspondents, Dr. PARRY, of Bath, and Mr. BLUNT, of Birmingham, on the subject of M. M. Wenzel's Corollaries on Epilepsy. Instead of "Cerebellum," the translator should have written "the pituitary gland." The only apology to be offered is, that during the continental, and afterwards the American war, so many difficulties occurred in procuring foreign Journals, that in order to preserve a faithful register of passing events, it was found necessary to use the assistance of philosophical compilers from the periodical Journals of every description. In consequence of this, the article being selected from an American Journal, was copied and printed verbatim. The original work has been long in London, and was, with much gravity, noticed by a Review now defunct. The editors of the London Medical Journal considered the whole too little deserving notice to make an article, and are happy to find their opinion confirmed by their learned and polite correspondents.

We have to return thanks for numerous informations we have

received, concerning the epidemic which has been so general in the flat eastern part of the Island. At Cambridge, it has been most noticed, probably on account of the number of subjects at that celebrated university, who are not natives of that part of England, and also on account of the importance of their lives from the rank they hold in the country. Yet, even here, the number of deaths has not exceeded eight or ten at most. In other parts we do not find the mortality has been so considerable, though the disease has been very general. It has assumed the name of Typhus Mitior or gravior, according to its severity, has no where appeared to be contagious, though attacking many in the same house from the same cause. The students at Cambridge were permitted to leave the university for a term, but for some weeks past have had notice to return, the danger being supposed at an end.

Dr. CLUTTERBUCK will begin his Summer Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Friday, June the 2d, at ten o'clock in the morning, at his house, No. 1, in the Crescent, New Bridge-street, Blackfriars.

The Summer Courses of Lectures on the Theory and Practice of Physic, by Dr. ROGET; and of Materia Medica and Medical Jurisprudence, by Dr. HARRISON; will commence, as usual, in Windmill-street, on the first week in May. The Lectures on Chemistry, will, in consequence of Dr. DAVY's absence from town, be given during the summer by Dr. GRANVILLE.

Dr. SQUIRE will, on Tuesday, the 16th of May, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

Theatre of Anatomy, Bartlett's-court, Holborn.—The Summer Course of Lectures on Anatomy, Physiology, Pathology, and Surgery, by Mr. JOHN TAUNTON, F. A. S. Member of the Royal College of Surgeons of London, Surgeon to the City and Finsbury Dispensaries, City of London Truss Society, &c. will commence on Saturday, May 20th, 1815, at eight o'clock in the evening precisely, and be continued every Tuesday, Thursday, and Saturday, at the same hour.

Theatre of Anatomy, Great Windmill-street.—Mr. SHAW will commence a Course of Anatomical Demonstrations, towards the end of May.

The LONDON PRICES of DRUGS were, on the 21st of April, as given in our last, excepting the following articles:

	£.	s.	d.	£.	s.	d.		£.	s.	d.	£.	s.	d.
Cantharides....	0	10	6	to 0	11	0	Saffron, Spanish	2	10	0	to 2	14	0
Cream of Tartar	5	15	0		6	6	0	Scammony, Al.	1	10	0		1	11	6
Tragacanth....	27	0	0	27	10	0	Verdigris, Dry.	0	6	6		0	6	9

Price of Vials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. 36s.—1 oz. 30s.—½ oz. 24s.

Lisbon Leeches, 30s. per hundred.—True French ditto, 55s.

Essential Salt of Lemons, 4s. 6d. per dozen.

METEORO-

METEOROLOGICAL REGISTER.

From March the 23d, to April the 25th, 1815.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Moon.	Day.	Wind.	Barometrical Pressure. Max.	Min.	Mean.	Temperature. Max.	Min.	Mean.	
	26	W.	29·45	29 45	29·45	57	47	52	Rain
	27	SW	29·50	29·44	29·466	58	48	53	Rain
	28	S	29·90	29·57	29·772	58	49	53·5	Fair
	29	S	29 97	29·85	29·892	60	50	55	Fair
	30	S.	29·97	29 91	29·935	61	52	56·5	Fair
	31	W	29·92	29 82	29 865	62	51	56·5	Fair
☽	1	SW	29·67	29·63	29·646	63	52	57·5	Fair
	2	S	29·8	29·8	29·8	64	55	59·5	Fair
	3	S	29·89	29·83	29·847	65	55	63	Fair
	4	S	29·96	29·91	29·93	65	56	60·5	Fair
	5	SE	30·22	30·18	30·202	65	54	59·5	Fair
	6	SE	30·19	30·11	30·152	63	54	58·5	Fair
	7	E	30 05	29·99	30·017	63	52	57·5	Fair
	8	E	29·94	29·87	29 89	61	50	55·5	Rain
●	9	E	29 88	29 88	29·88	61	50	55 5	Fair
	10	E by N	29·89	29 85	29·872	60	48	54	Rain
	11	E	29 96	29·96	29·96	58	45	51·5	Fair
	12	NE	29·93	29·85	29·832	56	39	47·5	Fair
	13	SE	29·75	29·60	29 645	55	37	46	Thunder, Hail, & Rain
	14	SW	29 83	29 58	29·702	52	35	43·5	Rain & Sleet
	15	N	30 08	30 04	30·055	53	35	44	Snow
◐	16	N	30·10	30·10	30 10	53	34	43·5	Rain
	17	N	30·15	30·12	30 142	53	32	42·5	Rain
	18	N	30·25	30·22	30·232	53	34	43·5	Rain
	19	N	30 16	29·95	30·06	54	36	45	Rain
	20	N	29 83	29 7	29·762	55	37	46	Rain
	21	N	29 25	29·87	29 02	55	33	44	Rain
	22	N	29.09	28·88	28 982	54	34	44	Rain
○	23	N	29 20	29·20	29·20	54	34	44	Rain
	24	N	29·52	29·33	29 415	55	33	4	Rain
	25	N	29·69	29 67	29 68	55	33	44	Fair

RESULTS.

Mean barometrical pressure of the month	29·772	Mean temperature of the month	48·556 deg.
Maximum 30·25	wind at N	Maximum 65,	wind at S
Minimum 28·88	—— N	Minimum 32,	—— N

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
11	1	5	3	6	3	2	0

	Mean barometrical pressure.	Mean temperature.
From the full moon on the 25th March, to the last quarter on the 1st April	29·718	54·85
—— last quarter on the 1st, to the new moon on the 9th	29·964	58·75
—— new moon on the 9th, to the first quarter on the 16th	29·88	47·14
—— first quarter on the 16th, to the new moon on the 23d	29·771	44·14

REPORT

REPORT OF DISEASES.

Since the alteration in the weather, which will be apparent by consulting our Meteorological Register, Catarrhal and Pulmonary Affections have increased. Sore-throat, not of a malignant character, has occurred frequently. Several cases of Erysipelas, in some of which the head and face were swelled, in one instance so much so as to occasion blindness, have come under the Reporter's immediate notice; and Rheumatism, chiefly in the chronic form, has lately claimed his frequent attention. In this disease, it is often easier to say what remedies have not been serviceable, than to enumerate those which have produced benefit. Bark, either alone or conjoined with guaiacum, so much extolled by many writers, has little efficacy in the rheumatic affections, which, during the cold months, are continually occurring in public practice. A combination of antimony, calomel, and opium, seems to succeed the best; the bowels being kept open with suitable purgatives, and stimulating liniments applied to the affected parts, and afterwards bark, with the view of restoring the debility in which the patient is left when the more painful symptoms have abated.

A case of chorea, still under care, is attended with some peculiar phenomena. The patient, a girl aged nine years, of delicate habit, when two years old, became unable to walk like other children of her age, and her legs were observed to bend. She recovered from this weakness, however, under the care of a surgeon, and continued very well till last November, when she began to complain of great pain in the back part of the neck. This increased, and she became affected with an inability to move her limbs; and, six weeks ago, was seized with the startings and violent motions of St. Vitus's Dance. Such was the short history related by the child's parents. Upon examining the little sufferer, the left side was evidently paralytic, she dragged the leg of that side along with difficulty, the limb making semicircular movements, and then advancing with a sort of jumping stride of unequal length, and out of the child's power to command. The symptoms of Chorea were betrayed by the tossing and unmeaning motion of the arms, twisting of the trunk and right leg. The head stooped forward and downwards towards the sternum from the neck; the pupils of the eyes were much dilated, the face of a florid hue, and a slight degree of hesitation of speech was slightly perceptible; the child was duller and more stupid than girls of her age commonly are. The bowels were constipated; the belly hard, but not enlarged; and the stools were of a dark colour. The last cervical vertebra evidently projected; and an increase of pain was complained of when pressure was made upon it.

The treatment at present insisted upon is simply a purge of calomel and rhubarb each other morning, and constantly blistering the neck. This has been continued about a fortnight, and has already been productive of benefit. The fæces present a more natural appearance, and the child possesses a little more power over her limbs. In a future Report, the history of the case will be continued.

MONTHLY

MONTHLY CATALOGUE OF MEDICAL BOOKS.

ON Gun-shot Wounds of the Extremities requiring the Different Operations of Amputation, with their after-treatment; establishing the Advantages of Amputation on the Field of Battle to the Delay usually recommended, &c. &c. &c. with Four Explanatory Plates. By G. J. Guthrie. 8vo.—Longman and Co.

Practical Explanation of Cancer in the Female Breast. By John Rodman, M.D. 8vo.—Underwood.

Part of the Introductory Lecture for the Year 1815, exhibiting some of Mr. Hunter's Opinions respecting Diseases. By John Abernethy, F.R.S. 8vo. Longman and Co.

Observations and Reflections on the Bill now in progress through the House of Commons, for better Regulating the Medical Profession as far as regards Apothecaries. By R. M. Kerrison. 8vo.—Longman and Co.

Fasciculus II. of a Series of Engravings of Cutaneous Diseases, illustrative of the principal Genera and Species described in the Practical Synopsis. By Dr. Bateman. 4to.—Longman and Co.

A Sketch of the New Anatomy and Physiology of the Brain and Nervous System of Drs. Gall and Spurzheim, considered as comprehending a complete System of Zoonomy; with Observations on its Tendency to the Improvement of Education, of Punishment, and of the Treatment of Insanity. Reprinted from the Pamphleteer, with additions. By T. Forster, F.L.S. 5s.

NOTICES TO CORRESPONDENTS.

"A Constant Reader" is referred to the Printer, (23, Bartholomew-Close,) for the Explanation he requires.

The Review of Dr. Spurzheim has been delayed on account of some inaccuracies in the Diagram, which the Engraver has not yet corrected.

Dr. Adams's Paper on Goitre and Cretin arrived too late for insertion this Month.

We have also been favoured with Communications from Dr. Haxby, Dr. Robertson, Mr. Atkinson, Mr. Sinerdon, &c. &c.

☞ *Communications (post paid) are thankfully received, and should be addressed to the Editors, No. 1, Paternoster Row; and, if intended for Insertion in the subsequent Number, they ought to come to hand before the 12th of the Month.*

THE

Medical and Physical Journal.

6 OF VOL. XXXIII.] JUNE, 1815. [NO. 196.

"For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the faculty in EUROPE and AMERICA were under deeper obligations than to the Medical and Physical Journal of London, now forming a long, but an invaluable series."—RUSH.

For the Medical and Physical Journal.

On Goître and Cretinism; by JOSEPH ADAMS, M.D.

IN the few lines with which you indulged me in the last Number of your valuable pages, it was slightly mentioned that the theory of the French physiologist concerning the origin of Goître and Cretinism, is not more remote from the generally-received opinion, than from the one which I have ventured to offer. I shall now endeavour to show that his theory is unsupported by any pathological laws hitherto discovered, or by any well-ascertained observations on the peculiarities of the human race; and lastly, that all the facts he has collected, serve to satisfy me, and I hope your readers, that "Goître and Cretinism are endemial in certain places, from no other causes than an hereditary property commencing in certain individuals, and perpetuated by sequestration and consequent intermarriages."

In answer to the generally-received opinion, that the disease arises from air, water, altitude, or any other known locality, sufficient has already been produced by the American physiologist (Dr. Barton) and the French philosopher. Both have proved such a want of uniformity in effect, as is absolutely inconsistent with the supposed causes. Discovered, as these people are described, in hordes in the Alps and Pyrenees, dwelling in the neighbourhood of, but forming no intimate connection with, families totally free from such peculiarities, how can we ascribe them to local causes? The first error, concerning water, has descended to us from Pliny, and even he speaks of it with an air of scepticism, rarely indulged by that credulous philosopher.* Dr. Barton,

* See lib. xi. cap. 37. Guttur homini tantum et suibus intumescit aquarum quæ potantur *plerumque* vitio.

indeed, imputes the disease to a particular constitution of the air; but, in the note copied from the Treatise on Hereditary Diseases, it has been shewn that there is the same want of uniformity between this supposed cause, and the effect, as in water. The coincidence in the hills of Derbyshire and the Alps and Pyrenees, has strengthed an opinion in favour of an elevated situation as a sufficient cause; but we have seen, by M. Ramond's account, that the disease is not confined to such spots, and Professor Barton found the swelled throat so much more frequent in vallies, or flat countries, that he imputes it to the same cause as induces intermittent fevers.

Let us now consider the force of M. Ramond's argument that this change in the human constitution has been induced by slavery and oppression. There cannot be a doubt of the justice of Homer's remark, that, when man becomes a slave, he loses part of those advantages which should distinguish him from brutes. His external form may be deteriorated by premature and constant labour; his mental faculties hebetated for want of cultivation or exercise; and his moral character depraved, by the necessity of opposing falsehood or cunning to severity and oppression. But will these causes induce a swelled throat, or even idiotcy? Have such changes ever been remarked, from the earliest accounts of slavery in the Children of Israel, to the most modern periods, when the condition of slaves has been traced with so much attention, and with no wish to under-rate its consequences.

It now becomes me to shew how such an effect is to be produced by any hereditary causes. By this I would not be understood to mean that perpetual intermarriages in the same family has in itself any power of deteriorating the race. The contrary is proved by the most authentic records, as well as living examples. That the Hebrews are of one family, cannot be questioned. Throughout all the diversity of condition, and of local residences, which their dispersion has induced, the same countenance is to be traced, with no other variety than in complexion and degrees of symmetry. This nation is the only one that can be traced to such an extent in Europe, or probably in the world, with such family distinctions, and with historical records, under such extraordinary dispersion, because they are, perhaps, the only individuals in Europe who have not gradually amalgamated with the polished nations among which they have emigrated. Family distinctions are, however, sufficiently observable in many states, the members of which have remained stationary, and much secluded from the period of their patriarchal government.

ment. These distinctions must gradually lessen, as the intercourse of the different nations increases; but it will be long before they are entirely obliterated. In the instance of the Hebrews, it must be admitted, that the only effect has been the preservation of a certain peculiarity of features or form, without the production of disease. But goître is a disease; and cretinism, if not an entire, is a partial, privation. We must, therefore, seek for some additional cause to account for the general prevalence of such effects; and I trust it will not be difficult to shew that the prevalence of certain diseases, in certain districts, has been imputed to air, water, and situation, which, on a more accurate examination, can only be accounted for by an hereditary cause, little interrupted by external alliances.

Whoever peruses Hippocrates' book, *De aere locis et aquis*, will be convinced that this great philosopher, partly in his travels, and partly from reports, discovered several endemic peculiarities among certain nations, the prevalence of which he imputed to air, water, and locality; but which can only be accounted for by the presumption that the inhabitants, having sprung from one common stock, have, for the most part, retained the same family peculiarity of constitution. To what state of the air can we impute the frequency of hydrocele, even in young children, or a disposition to hæmorrhage or epilepsy, which last, with some other diseases, mentioned in the same section, are known to be hereditary. Yet the prevalence of these diseases, and even the improvement of the human race in beauty and mental faculties, are by Hippocrates imputed to local causes. Not contented with this, he ascribes to the aspect of a town that melody of voice so universally considered as a family or hereditary endowment. These opinions he extends to the inferior animals, imputing the want of horns in the Scythian cattle to the state of the air, though it is now well known that the race called the poll cattle may be propagated in any climate.[a]

It will, perhaps, be urged, if that we admit goître and cretinism to be hereditary, this can only account for the multiplication of such objects, and not for their origin. In answer to this, I need only repeat what has been demonstrated in the foregoing Treatise, *viz.* that the origin of hereditary diseases must for ever remain beyond our research; because the peculiarity of constitution must always have commenced in individuals whose parents and remotest ancestors were free from it. In the same place, the provisions were pointed out which seemed made to prevent the uni-

[a] Hippocrates περὶ ἀερων, ὑδατων και τοπων.—Sect. iii.

versal prevalence of such diseases, and to induce their gradual extinction in families in which they are hereditary. This naturally led to a consideration of those causes by which such diseases are likely to become more generally prevalent. It was shewn that among the inferior animals, peculiarities or varieties, as they are called, occur, which do not exist in either parent, but which may be perpetuated in their offspring. To accomplish this, it is found necessary to seclude the race; and, if we wish to preserve the variety in its greatest perfection, we also withdraw from the flock such as are the least marked. To apply this to the human race, we must refer to that remote period when they subsisted chiefly by hunting or pasturage, and required a larger tract of land for their support. In such a state of mankind, single families, governed by patriarchs, would, from necessity or choice, migrate as often as the district became too populous. On all these occasions the weakest must submit not only to migration, but gradually to seek security in the most secluded or inaccessible places; and, as the general population increased, they would at last, as M. Ramond remarks of the cagots, by the same events, be confined to the most remote and desert spots.

Thus secluded from the rest of mankind, the family must constantly intermarry, and any peculiarity of form or hereditary disposition, would, with greater probability, be perpetuated. If this peculiarity were favourable, it would be preserved with more certainty, because the inclination of each sex would induce alliances with the best favoured, and the most vigorous would live to the age of forming such alliances. Even should the peculiarities be less favourable, they might gradually be lessened by the first-mentioned causes; and the premature death of those who partake most of the hereditary diseased disposition, would be very much increased, if, as was shewn in scrofula, the climate should be such as to induce an early development of the disease in an exasperated form. The operation of the first-mentioned cause would be slow, because we well know that an hereditary peculiarity will apparently cease for a generation or two, and afterwards shew itself in the offspring of a couple entirely free from it. To extinguish it, as far as possible, no means occur but that general intercourse with other communities, which takes place in proportion as the members of each approach the other, or in proportion as migration to and from them is facilitated. Even then, individuals inferior in talents, enterprize, or successful industry, will remain on the spots, and this class will be the last to show any considerable improvement.

Let us then suppose that a family in whom the swelled throat was hereditary, had found it necessary to emigrate. That, from their imbecility, they had sought a secluded spot, and had remained for many generations separated from the rest of the world. In such a community, no cause would exist to lessen the family peculiarity. The disease is not influenced by climate in such a degree as to destroy prematurely those who are most disposed to it. The constant sight would lessen that repugnance to a deformity which would be disgusting to strangers; add to this, at the most interesting period of life, the progress of the disease is often such as would be little noticed where its most advanced stage is perpetually obtruding itself. By such a family, I conceive, the less accessible parts of the Alps and Pyrenees were peopled;—at what period, it is impossible that we should now ascertain. That they were once comparatively few in number, or confined to the most secluded parts of the Alps, we may conclude, as they are unnoticed by any writer of antiquity excepting Juvenal, and that they were frequent in his days cannot be questioned, whatever allowance it may be right to make for his strong propensity to caricature.—Quis tumidum guttur miratur in Alpibus?

This testimony is enough to shew that their origin is much more remote than any period assigned by M. Ramond. Since the perusal of the extract contained in page 209 of your present volume, I have taken some pains to learn all that can be collected concerning the people whom he designates as Cagots, Cacots, or Capots. The French Cyclopædia contains an interesting historical account very similar to M. Ramond's. The writer of the article refers to Marca's History of Bearne for his information, and there is no reason to question the authenticity of the relation. But it is far from clear that the Cagots were either Cretins or Goîtres; or that the Goîtres and Cretins of the Pyrennees and the Alps were at all connected with the race called by the opprobrious epithet which M. Ramond heard pronounced with so much reluctance. It is well known that a term of reproach soon becomes general, when its origin or etymology is often lost. It is not less certain that Cagot is at this time a common term of opprobrium for a hypocrite or bigot, though the French have the same words as ourselves to express such characters. It is, therefore, at least suspicious that M. Ramond, having heard these unfortunate people called Cagots, made it his business to inquire what was meant by the term, and that he has associated the history of a race said to be the remains of sectarian invaders, with another noticed before Christianity was any where established

blished. It must, however, be admitted, that, though M. Ramond is probably mistaken, yet much more is necessary to be known before the whole intricacy of the question can be completely unravelled. All, therefore, that can be expected in the present state of France and of Europe, is to make the most of such materials as the best documents afford.

If we admit the causes I have assigned, they explain no more than the probable origin of Goîtres. I know not that the swelled throat is any where associated with idiotcy, excepting in the Alps. It certainly is not in Derbyshire; and the accounts of the American pathologist would induce us to suppose that no such union exists in the western hemisphere. M. Ramond speaks of Cretins as frequent in the Pyrenees. If this be the case, it has not generally been remarked by former travellers. However, as it is probable that Cretinism was not always associated with the swelled throat in the Alps, the same cause, at different times, may have produced the same effects in each. That idiotcy was not general in the Alps in Juvenal's time, may, I think, be fairly inferred, from his not mentioning it, when his whole object was to shew, that in certain districts certain peculiarities in the human race were so common as to excite no particular attention.

Quis tumidum guttur miratur in Alpibus? aut quis
In Meroe crasso majorem infante mamillam?
Cæruia quis stupuit Germani lumina.——&c. Sat. xiii. 162.

It is scarcely probable that a single family should have been visited by two such calamities; but it is easy to conceive that the union of two such families sequestered from the rest of the world, may have produced such a race as is described in the Alps. Goître, we are told, even in that part of the world, is not necessarily associated with idiotcy, nor idiotcy with Goître. If conjecture may be admitted, where we have no documents to assist us, it may not be difficult to discover causes for such a mixed race as is described in the Alps.

It has been very well observed by Professor Spurzheim, that the generality of those solitary human beings considered as in a state of nature, have been idiots who wandered from their parents, and have just had understanding enough to procure their own food in the deep recesses of uninhabited forests or rocks. That this may occur on the continent, is easily understood, on account of the immense forests which are preserved for fuel and other purposes, even in the best cultivated countries. It is also certain that there is a pro-

pensity in idiots to wander, either from stupid curiosity, or from ignorance of the consequences, or even from an incapacity to recover their right road when among those who use what may be considered their native language. Of this I shall relate two remarkable instances in one family. A couple, one of whom had a mind somewhat above the common level, and the other was equal to the customary business of life, had two children approaching to idiotcy, and another, who, till about the age of puberty, when she rapidly improved, was greatly inferior to those of her age. The condition of the eldest was so evident, that she was removed to the care of a cottager, in a distant part of the country, on a pension which rendered the preservation of her life and her comfortable existence an object of interest to those who had the charge of her. The other, during the period of her imbecility, left her parent's house on a trifling errand into the next street, and wandered from the neighbourhood of Covent Garden to Stepney, before she discovered the necessity of or had courage to inquire her way. Both these had the free use of their native language. The third, a boy, at the age of about ten, left his parent's house at a moment when he was not attended to, and wandered into the fields at a considerable distance from home. In this condition, he sat down, till he was discovered by a hair-dresser, who, struck with his tender age, a countenance of distress, and the neatness of his apparel, endeavoured to learn his history. The boy was unable to explain himself. His condition, however, excited the compassion of his discoverer, who took him to his house. Throughout the whole evening and the following morning, the unfortunate foundling was observed to utter only one intelligible sound. The hair-dresser, in the morning, amused all his customers with the adventure. One of them advised him to apply to every shop he saw answering to the term which escaped from the boy; and to inquire at each concerning the probability of any family to whom he might belong. In this manner the parents were, after two or three days, discovered, and the boy restored. From that time he was never able to give an account of any event that passed during his absence; and the only recollection he ever shewed was, on the following evening, bursting into a flood of tears.

When idiotcy occurs in an English family, the consequence depends much on the birth of the object. If of the higher rank, almost the only solicitude is to prevent the disgrace of the family by an improper marriage, and this, if the imbecility is very considerable, is not difficult. In inferior rank, a male idiot is made useful as far as his abilities will

will permit; but he never shews any partiality to the other sex beyond a sense of gratitude for those attentions which, to their honour, they bestow from motives of unmixed compassion. Females of this description rarely quit their mothers, unless consigned to the work-house. The insular form of our country, and its generally-cultivated state, prevents the occurrence of those wild human beings, as they are called, of which we often hear on the continent.

Should a wanderer of this description find his way to a proscribed nation, which is conscious of a peculiarity sufficient to seclude them from the rest of the world, we cannot doubt that a feeling, if not of respect, at least of sympathy, would be excited in favour of one to all appearance of a superior order, perfectly inoffensive, and whose want of intellect would for some time be confounded with his ignorance of their language. When we recollect the history of the family related by Haller,* and also that there is nothing in climate to shorten the lives of these unfortunates, the consequence may easily be conceived if such an event should occur even once in a succession of ages.

From these considerations, I should conclude that the whole race of Goîtres are the product of a single family, and that idiotcy has probably been since introduced among them by the causes above assigned. That, from the general disgust they excited, they have been driven to rocks at one time almost inaccessible. That idiotcy has been since introduced among them, either by the event above mentioned, or that, having occurred in the family, it has been perpetuated from inattention, or from that sympathy which common distress so naturally excites. If this is not the true history of the origin and present condition of that unfortunate race, it appears at least a sufficient cause, and may, perhaps, be found the only conjecture consistent with sound physiology, applied to *all* the facts on which we can depend. Aware, however, how much more easy it is to object to the opinions of others, than to establish one's own, I trust what has been offered will only be considered as conjecture, requiring for confirmation a much more comprehensive knowledge of the subject. For want of such knowledge, I shall conclude with the judicious motto selected by Dr. Barton, which may serve as an apology for us all:—

"I know but one class of people who never err, those who do nothing, observe nothing, and make no experiments."—Fontana.

* See Treatise, p. 88.

The

The following extracts, with the few remarks on each, could not easily be introduced in the paper without interrupting the chain of reasoning. In their present form, they afford an opportunity of showing the authorities alluded to, and of further illustrating the doctrine, after the reader is made acquainted with the general conclusion.

For an account of the Cagots, I am indebted to the French Encyclopædia in the London Institution.

"Cagots ou Capots c'est ainsi dit Marca dans son histoire de Béarn qu'on appelle en cette province, et dans quelques endroits de la Gascoyne, des familles qu'on pretend descendues des Visigoths qui resterent dans ces cantons apres leur déroute generale. Ce que nous en allons raconter est un exemple frappant de la force et de la durée des haines populaires. Ils sont censés ladres et infects; et il leur est defendu par la coutume de Béarn sous les peines les plus séveres, de se mêler avec le reste des habitans. Ils ont une porte particuliere pour entrer dans les Eglises et les siéges séparés. Leur maisons sont ecartées des villes et des villages. Il y a des endroits ou ils ne sont pas admis a la confession. Ils sont charpentiers et ne peuvent s'armer que des instrumens de leur metier. Ils ne sont point reçûs en temoignage on leur faisoit enciennement le grace de compter sept d'entré eux pour un temôin ordinaire. On fait venir leur nom de *caas Goths*, chiens des Goths. Cette denomination injurieuse leur est restée, avec le soupçon de ladrerie, en haine d'Arianism dont les Goths faisoient profession. Ils ont été appellés *chiens* et reputés *ladres* parce que ils avoient eu des Ancêstres Ariens. On dit que c'est par un chatiment semblable a celui que les Israelites enfligorent aux Gabaonites, qu'ils sont tous occupés en travail des bois. En 1460 les etats de Béarn demanderent a Gaston d'Orleans Prince de Navarre qu'ils leur fut defendu de marcher pies nuds dans les rues sous peine de les avoir percés et enjoint de portér le pie d'oie ou de canard sur leur habit. On craignoit qu'ils n'affectassent et l'on pretendoit annoncer par le pie d'un animal que se lave sans cesse, qu'ils etoient immondes. On les a aussi appellés *Geziatins*, de Giezi, serviteur d'Elisée, que fut frappé de lepre. Le mot Cagot est devenu synonyme a *hypocrite*."—*Encyclopédie, Paris*, 1751. Article *Cagots*.

Ramond, whilst the general import of his argument would lead us to suppose that Goitre and Cretinism are confined to a particular race, or, in other words, that they are hereditary, seems much at a loss to comprehend how a nation of warriors should be so degenerated. This he attempts to account for by supposing that oppression had produced such changes. Besides the arguments above offered against such an opinion, we may see, in Ambrose Paré, to whose writings Ramond refers us, that the leprosy of which the Cagots were suspected had not the least connection with goître. The two diseases are spoken of in distant parts of his works.*

* In book 2, chap. ix. under the term Ladrérie, Ambrose Paré

M. Dralet, after objecting to the theories of all his predecessors, imputes the disease to the great difference between the temperature of the day and night in certain mountainous parts; yet he is forced to admit that many of the inhabitants escape. This he explains by their better condition of life, observing, that most of the goîtres are wood-cutters or *charpentiers*. It is surely much more reasonable to suppose that these occupations should be confined to certain families, than that such necessary employments, without slavery, should be attended with abject poverty, or even that abject poverty should induce such effects.

M. Dralet, in the character of *Conservateur des Eaux et Forêts de la* 13 *Division*, visited the Pyrenees two years after Ramond, and probably had larger opportunities of examining the character and habits of the nation. By comparing the various parts of his work, one might almost suppose that he had some confused notion that the Goîtres were once a colony of refugees from the Cagots; and that the Cagots, instead of being the descendants of the Goths, were rather the aborigines of the country.

"Pour procéder avec ordre, mettons en première ligne les Basques Français, que l'on divise en Labourdins, Bas-Navarrois et Souletins. Leurs ancêtres, descendans des Ibériens, arrêtèrent les Romains dans le cours de leurs conquêtes, résistèrent aux Suèves et aux Visigoths, opposerent des armes victorieuses à celles de Clovis et de ses enfans, et rendirent vaines toutes les attaques que dirigèrent contre eux les Sarrasins. Généreux autant que braves, ils ne se bornèrent pas à défendre leur pays et à en étendre les limites, ils servirent Viriathus, les Numantins, Sertorius, et Pompée, et furent toujours favorables à quiconque se présenta comme victime de l'oppression, ou armé pour la cause de la liberté.

"C'est l'amour de cette liberté qui attacha constamment les Basques au séjeur des montagnes, où la nature offre tant de moyens de défense et tant de facilités pour rendre vaines les poursuites d'un ennemi puissant. Ce peuple, pasteur et guerrier, évita avec soin tout ce qui pouvait apporter quelque changement dans sa manière d'être. A l'attention de ne point se mêler avec d'autres peuples† il joignit celle de ne permettre aucune innovation dans son langage, dans son culte et dans ses coutumes. C'est ainsi qu'il a conservé, d'âge en âge, la pureté de son sang et la simpli-

speaks of the Cagots in Britany as exhibiting no external character of leprosy, and as a well-favoured people. Did the influence of the priesthood oblige him to call them lepers?—Goîtres are mentioned with reference to the bronchocele of the ancients, in livr. vii. cap. 2, without any reference to the Alps or to Cretinism. Can any of your readers inform us who was the first writer that speaks of Cretinism among the Goîtres? A. Paré wrote about the middle of the 16th century.

"† De temps immémorial il existe dans les pays basques des familles

cité de ses mœurs."—*Description des Pyrenees, par M. Dralet*, vol. i. p. 163.

If the reader compares the text and notes of the above extract, in the one he will find the Basques described in terms almost encomiastic; in the other the same people, or a race similar in their physical and moral qualities, are called Cagots, and said to be with difficulty admitted into society. Mutual antipathies may have existed for a succession of ages, till the causes have been forgotten, and nothing remains excepting a tradition by which the families are distinguished. But such can never be the case, where the figure and want of intellect are so manifest as in goîtres and cretins. In the chapter from which the above extract is taken, no mention is made of this unfortunate people; but in the succeeding chapter they are described very much at large, and with epithets which M. Ramond makes synonymous with cagots. Without attempting to unravel these difficulties, I shall content myself with transcribing the following passage.

"Un tel état de misère rendit toujours les goîtreux à charge à la société; on évita dans tous les temps de s'allier avec eux. Un sang vicié fut transmis de père en fils, et ne put se mélanger qu'avec un sang aussi vicié. Ainsi se formèrent ces races de crétins, que l'on appelle aussi dans les Alpes et les Pyrénées *caffos*, en Auvergne *marons*, et c'est, n'en doutons pas, à des circonstances à peu près semblables que les *cacous* ou *caqueux* de la Bretagne et les *colibets* de l'Aunis et de la Rochelle doivent leur origine. Ces circonstances donnèrent naissance aux maladies des premiers habitans, qui furent fixés par la misère dans certaines familles dont on voit encore les rejetons.

"Il n'est aucune précaution que l'on n'ait prise anciennement pour empêcher que ce mal n'étendit ses ravages. Les crétins

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milles étrangères, dont les individus sont connus, les uns sous le nom de *Cascarots*, les autres sous celui d'*Agots*.

"Les Cascarots ou Bohémiens [gypsies] sont réputés vagabonds, et ont été mis de tout temps sous une surveillance particulière de la police.

"Les *Agots* ou *Cagots* sont domiciliés; ils ne diffèrent des Basques d'ancienne origine ni sous le rapport du physique, ni sous celui des mœurs. On ne les connaît que par la tradition, qui indique que telle ou telle famille est *agote*, et que tel ou tel individu lui appartient. Les Agots passent pour être descendans des Goths. Ils vivaient autrefois dans un tel état d'abjection, qu'on ne leur permettait point de passer le péristile des églises. Quoique le temps ait beaucoup adouci le préjugé qui les poursuivait, il est encore très rare, dans les campagnes, que l'on contracte des alliances avec eux. Il n'en est plus de même dans les villes; les Agots sont confondus avec les autres citoyens, et l'on ne s'occupe plus d'eux."

avaient une place séparée dans les églises; ils y entraient par une porte particulière, et avaient un bénitier uniquement destiné à leurs usages; de telles mesures se multiplièrent au point qu'en 1460 les états de Béarn voulaient qu'il fût défendu aux crétins de marcher pieds nus dans les rues."—*Dralet*, vol. i. p. 188.

I have ventured to suggest that there is probably no other connection between goître and cretinism than the accidental circumstance of an union between two such families. Dr. Reeve, in an ingenious paper published in the Philosophical Transactions, after describing several cases of cretinism, unaccompanied with goître, assures us that

"There is no necessary connection between goître and cretinism, notwithstanding the assertions and ingenious reasoning adduced by Foderé. That it is probable the one has been assumed as the cause of the other, from the enlargement of the thyroid gland being a frequent occurrence in cretins; and as it forcibly strikes the observer from the deformity it occasions, this strong impression may have converted an accidental, though frequent, occurrence, into a general and necessary cause. Cretinism is frequently observed without any affection of the thyroid gland, and that gland is often very much enlarged without any affection of the intellectual faculties. There seems [continues he] to be some similarity between cretinism and rickets, as they both take place in infancy, are both characterised by feebleness of body, and sooner or later by feebleness of mind, and they both affect males and females equally; but there is no sort of connection between persons afflicted with bronchocele in England, and with rickets. For, although it might be granted, that there is some delicacy of frame in females about the period of pubescence, when bronchocele usually occurs, yet neither irregular formation of the bones, nor weakness of the intellectual powers, are common symptoms attending bronchocele in Britain."

See also Memoirs of the late Dr. Reeve, Edin. Med. Journal, vol. xi. p. 254.

Where, we might ask this ingenious and candid writer, is the similarity between cretinism and rickets; or which are the authors who speak of rickets as attended with *feebleness of mind?* At the close of the paper, Dr. Reeve adds, as a presumptive argument in favour of his opinion, that Glisson describes rickets in Britain about the time that Plater mentions cretinism. But this only shows the improved progress of our art about the same time, in consequence of which, facts before unnoticed, or only noticed by the vulgar, began to attract the attention of philosophers. We are not to suppose that angina pectoris was less common before Dr. Heberden described it, or that mumps and croop began to exist when the improved state of medicine in North Britain brought them into notice, and procured us accurate descriptions of each.

It is remarked both by Dr. Reeve and M. Dralet, that in proportion

proportion as the country improves in wealth and cultivation, the diseases are less prevalent. This is extremely probable, because, in proportion as men learn the charms of an improved mode of life, they are cautious not to engage in the expences of a family without a prospect of decently supporting it: at the same time an improved taste arises, and even a view to posterity, all which will tend to check the increase of population, and to improve the succeeding generations.

It is to be regretted that some of our most ingenious writers should fancy themselves obliged to account for the origin of diseases which afterwards prove hereditary. Is it more remarkable that a diseased disposition should be perpetuated than an actual monstrosity? In the less complicated animals, where we have opportunities of making experiments, it has been remarked, that peculiarities, the causes of which we never attempt to explain, may be easily preserved. Besides those which are well known, a single-hoofed boar, as mentioned by Bradley,* is now in the possession of Sir Joseph Banks. From a sow with the cleft hoof, a litter is produced, the individuals of which are formed, some like the sire, and others like the dam. Probably nothing more is necessary to produce a race of single-hoofed swine, than the selection of all those which are thus formed. In my treatise, many instances are produced of similar peculiarities of form in man which have proved hereditary, and that they most commonly occur in parts of little importance.† If no one attempts to account for their first appearance, why should we think it necessary to ascertain the origin of hereditary diseases? The following attempt of Dr. Darwin shows the danger of uniting poetry with pathology.

"In many cases, however, there is no appearance of the disposition to epilepsy or insanity of the parent being transmitted to the progeny. First, where the insanity has arisen from some violent disappointment, and not from intemperance in the use of spirituous liquors. Secondly, where the parent has acquired the insanity or epilepsy by habits of intoxication after the procreation of his children. Which habits I suppose to be the general cause of the disposition to insanity in this country. See Class III. 1. 1. 7.

"As the disposition to gout, dropsy, epilepsy, and insanity, appears to be produced by the intemperate use of spirituous potation, and is in all of them hereditary; it seems probable, that this disposition gradually increases from generation to generation, in those families which continue for many generations to be intemperate in this respect; till at length these diseases are produced; that is, the irritability of the system gradually is decreased by this powerful stimulus, and the sensibility at the same time increased, as explained in Sect. XXXI. 1. and 2. This disposition is communi-

* Philosophical Account of the Works of Nature, page 91.

† See Treatise, pages 67 and 68.

cated

cated to the progeny, and becomes still increased, if the same stimulus be continued, and so on by a third and fourth generation; which accounts for the appearance of epilepsy in the children of some families, where it was never known before to have existed, and could not be ascribed to their own intemperance. A parity of reasoning shews, that a few sober generations may gradually in the same manner restore a due degree of irritability to the family, and decrease the excess of sensibility.

"From hence it would appear, probable, that scrofula and dropsy are diseases from irritability; but that in epilepsy and insanity an excess of sensibility is added, and the two faulty temperaments are thus conjoined."—*Zoonomia*, vol. iv. p. 63, 3d edit.

The most unexceptionable part of the above extract is, that the author admits a *parity of reasoning* between the different parts of his theory; that is, that no part is ascertained. Whilst we admit that the whole is much more poetical than philosophical, we cannot help regretting that a writer abounding with so much practical information, should attempt more than human faculties can ever accomplish.

M. Fodéré imputes the goître to a warm and moist atmosphere, having found it on the south-western side of the Alps. Ramond and Dralet assert that it is on the northern aspects of the Pyrenees where the atmosphere is colder. Fodéré shows as little arrangement in his mode of reasoning on this subject as most other men who attempt to account for, instead of exploring, the phenomena of nature. After ascribing the disease to the above local causes, he attempts to explain the manner in which it becomes hereditary. The following are his words:

"'Si le goître n'est qu'accidental et qu'il n'y ait qu'un des parens affecté, les enfans ne naissent pas goîtreux.

"'Ils naissent, au contraire, goîtreux, si, de père en *fils*, un goîtreux a épousé une goîtreuse pendant deux générations, et dans un pays où le goître est endémique: la troisième géneration, l'enfant qui naît est non seulement goîtreux, mais il est encore crétin.

"'Un père malsain, rachitique, à demi-crétin, marié à une goîtreuse, produit des enfans goîtreux à la première génération.' *Foderé*, pag. 69."—*Dralet's Description of the Pyrenees.*

In a place where, according to M. Foderé, the causes are constantly operating, how should we determine whether the disease is casual or hereditary? If we may believe that his remarks have any foundation in actual experience, it would be the duty of every woman free from the disease to marry a goître, in order to secure her offspring from the local effects of the south-west wind. Next we are told that the union of goîtrous couples for a certain number of generations produces cretins, and this with much more certainty than an English jockey would calculate on the properties of a horse,

notwithstanding

notwithstanding the advantages he possesses, by the early maturity of that animal, and the accuracy with which his pedigree may be traced. I shall conclude with remarking, that few writers who impute goître to local causes, entirely escape admitting that it is also hereditary. If two such causes really existed, their constant co-operation in producing a disease which neither shortens life nor renders the subject less prolific, would not only account for its prevalence, but must, by degrees, render it universal in the districts. But the disease is said to be on the decline. This is easily understood of an hereditary disease, as has been before explained; but it is inexplicable if that hereditary disease originates in local causes. I say nothing of poverty and filth, because they do not appear necessary to account for the phenomenon, and because such effects are never produced by these causes in other parts of the world.

Hatton Garden. JOSEPH ADAMS.

For the Medical and Physical Journal.

Case of Puerperal Peritonitis; by Mr. THOMAS ATKINSON, of Kilham, Yorkshire.

A. T. was, on the 13th of March, delivered of her first child, after a short and natural labour, the placenta separating without difficulty. She appeared to recover very well until the morning of the 15th, when she was affected with slight shivering, succeeded by pain in the forehead, over the orbits, and also in the abdomen: this increased rather rapidly, and was so violent, at intervals, over the whole belly, that for several hours her cries were heard round the neighbourhood. I was called to her about four in the afternoon. The abdomen was then considerably swollen and tense. The least pressure could not be borne, especially about the navel. Pulse 126, rather full; tongue white; skin very hot; cheeks occasionally flushed, with distressing pain over the eyes, which sometimes removed to the side of the head. The secretion of milk did not appear impaired, nor the lochia much obstructed, but of very bad smell. She could not turn on her side without screaming, and seemed to half breathe from the pain excited by inspiration; had not been able to evacuate the urine since morning; did not feel much sickness, or any inclination to vomit. About 18 or 20 ounces of blood (very buffy) were drawn from the arm, which gave some relief. The bowels being bound, an oily enema was administered, which brought away a quantity of hardened fæces. Half an ounce of the Ol. Ricini was ordered every two hours till it operated. A

fomentation was used to the body. She was easier some hours, but the pain returned during the night most violently, and continued till the morning of the 16th, when I visited her, and took away about 18 ounces more blood, with very great relief to the abdominal pain. The fomentation was also repeated, and a saline mixture ordered. She had had several stools during the night, from the castor oil, which were brown and frothy, having, as the nurse described it, very much the appearance of yeast. I saw her again in the afternoon of the same day, and drew off by the catheter above a quart of urine. The pain in the head and abdomen much easier; was quite sensible; the pulse smaller, about 135; tongue much furred. I now determined (on a recurrence of the symptoms) to try the Sp. of Turpentine, recommended by Dr. Brenan in his late most valuable paper in your excellent Journal. Towards evening her pain returned violently, and for some hours she appeared in a state of stupor and insensibility, occasionally shrieking. About eight o'clock, about two drams of the Sp. Terebinth. were given her in some weak mint water: within twenty minutes she felt very great relief, and called out for a repetition of the dose, which was given her four times, at an interval of four hours. When I visited my patient next morning (the 17th), she was attempting to suckle her infant, quite free from pain, even on pressure; had several motions of more natural appearance during the night; pulse calm, about 108; made water freely; and felt a disposition to take some support. The turpentine was discontinued, as she felt almost well; but the abdomen being still swelled, it was ordered to be rubbed with a liniment composed of equal parts of Ol. Camph. and Sp. Terebinth. 18th. Passed a good night; had several hours sleep; stools and lochia natural; belly soft, and free from pain; skin moist; appetite returning; pulse 96. Was ordered some medicine of the tonic kind, and in a few days perfectly recovered.

This appeared to me a mixed case;—along with marked symptoms of peritonitis, the tensive pain over the eyes, and fermenting process in the stools, are considered symptoms of puerperal fever, some fatal cases of which had lately occurred hereabouts; but there was no vomiting at all in this instance. Whatever may be the nature of the turpentine's action on the system, it is certainly a most powerful and safe medicine, as was evinced in this case, by the entire removal of every bad symptom after its use. I trust more extensive experience of its effects will sanction it as a remedy in those distressing puerperal affections, particularly puerperal fever, hitherto so unmanageable, and almost uniformly fatal.

April 13, 1815. THOMAS ATKINSON.

For

For the Medical and Physical Journal.

Dr. HAXBY's *Reply to the Editors.*

THE favourable manner in which my communication has been received, demands my grateful acknowledgments and ready compliance with any request you may think right to propose.

I have no doubt that the dyspnœa was, till within a fortnight of my patient's death, exclusively occasioned by the continued pressure of the aneurismal sac on the trachea; the difficulty of breathing being afterwards increased by the infarction of the lungs, consequent on inflammation. There appeared no impediment to the function of the œsophagus, either in deglutition or vomiting.

I regret that it did not occur to me to make the experiment of pressing the air back from the vesicles into its natural cells, though I think it more than probable that the communication was, in many places, pervious, from the unequal prominence of the vesicles, and, if I recollect right, from a sensible elevation of them when pressure was accidentally made on the lungs; besides, I can in no other way account for the particular sound which was heard during the act of laborious expiration, but by supposing that the compressed air, not finding a ready exit from the cells through the trachea, was forced back into the vesicular caverns, exhibiting a species of ventriloquism, and occasioning, by its want of renovation, the extraordinary anxiety at those times complained of.

Why the crasis of the spleen was so entirely broken down, while the structure of the liver, kidnies, and all the other abdominal viscera, was so firm and healthy, I cannot satisfactorily explain. Had it depended on the de-oxigenated state of the blood loosely coagulated, the effect would have been more general. The same reasoning will apply to the partial sphacelation of the lungs, which, as well as the effusion, I have no doubt, was induced by previous inflammation of these organs, indicated by the quickness of the pulse, by increased heat, thirst, &c. which took place only about a fortnight before the death of the patient.

In addition to Mr. Rowe's remarks on a case of supposed confluent varicella, I beg to observe, that I have met with two or three instances of a copious pustular eruption subsequent to vaccination, where the stages were intermediate in duration between varicella and variola, and where the vesicles contained a purulent fluid, and were succeeded by a few

distinct *foveæ*. I do not remember that any person was inoculated from the matter of these pustules, as it was concluded they were merely the chicken-pox. Is the observation confirmed, that varicella, following vaccine, is more severe in proportion to the proximity of its succession?

I am happy to find, by one of your preceding Numbers, that Dr. Kinglake's attention has been called to a point of great importance in medical practice, which still divides the opinion of a great portion of the faculty in this part of the country. I allude to the contagious nature of phthisis, or of some varieties of this disorder. I do not profess myself an advocate for its being infectious; though, from a proper degree of caution, I prevent, as much as I am able, unnecessary exposure of the patient's friends to the inhalation of air which has been returned from the lungs in a state of ulceration. I trust Dr. K. will prosecute this interesting enquiry, and invite the assistance of the members of the profession.

Pontefract; JOHN HAXBY, M.D.
April 21, 1815.

I shall be obliged to you to notice the following errata in No. 194.

P. 266, line 30, instead of "*from home,*" read "*from this place,*"

P. 268, line 11, for "*Spirit of Æther,*" read "*Spirit of Nitrous Æther.*"

P. 269, line 37, for "*Mr. Bramton,*" read "*Mr. Branston.*"

P. 271, line 29, for "*the fine,*" read "*the firm.*"

For the Medical and Physical Journal.

On the Nervous System, in Reply to Londinensis; by Mr. SMERDON.

IN answer to queries which have been put to me, by your correspondent Londinensis, I beg leave to subjoin the following observations.

At the commencement of my remarks on the functions of the nervous system, I attempted to define the cause of muscular motion to be consequent on an action between nervous energy and the irritable principle; I considered that all parts, which contract on the application of stimuli, possess this principle, and that it is independent of actions and of organization: but I did not say living organization, nor can I conceive how such an inference could be drawn, since in another part I have admitted, that irritability may be either life or its essence.

Londinensis

Londinensis will admit, I suppose, that muscular fibre does not become disorganized immediately on losing its vitality; but, when a muscle is deprived of life, it also losing the property of contracting on the application of stimuli;* the arteries of a dead animal, when injected, with an irritating liquid, remain passive;† and the well known effect of galvanism on a sheep recently killed, which a few hours after the apparent death of the animal cannot be produced again, prove pretty evidently, that living muscles possess an irritable property, which cause them to contract on the application of a stimulating power, but which they retain only so long as they retain the living principle.

The knowledge of this contractile property in muscular fibre, is of great consequence to the surgeon: in his treatment of dislocations, it will point out to him the primary necessity of relaxing such muscles as are kept permanently contracted, by being placed in an unnatural position; and he will thus sometimes be enabled to overcome by art, what the most powerful mechanical force would only have rendered still more formidable. Hence too, amputation is indebted for much improvement, at least so far as the after-treatment is concerned; nor is it possible to make a good stump, especially if the thigh be the part operated on, if the surgeon neglect to provide against this peculiar law of nature.

The irritable principle is confined to parts which contract on the application of stimuli. The lungs, the liver, the kidnies, &c. have not this property, although they are plentifully supplied with nerves; hence in animals it is exclusively confined to the muscular fibre. It is probable, also, that this principle is the connecting medium between animals and plants, and that it is one cause of contractibility in those species of the latter which are called sensitive.

That matter cannot act where it is not, is an axiom which all men will acknowledge, who are not sceptically determined to deny the material existence of whatsoever is not cognizable to their senses. If, for instance, a deaf man were to affirm, that a combination between air and a few

* If this were owing to the deprivation of life, then irritability could not be distinct from the living principle; but all parts of an animal live, and are endowed with nerves, yet have not this property of contracting: in either case it is clear, that irritability is independent of organization.

† It would appear, by the experiments of Sir E. Home, that the alternate contractions of arteries are influenced, if not wholly occasioned, by the action of nervous energy on the irritability of their muscular coat.

tremulous strings could not possibly produce sound; or, if he were to deny the existence of sound altogether, unless he had ocular demonstrations of it, would any one who possesses the sense of hearing become a convert to his opinion? I consider the person who denies the existence of matter, because it can neither be seen nor felt, to be the same sort of reasoner as this deaf man. For my own part, I conceive that causes must be always adequate to their effects; and when I see the most durable work of art or nature rent in twain by an invisible agent, or the spontaneous motion or contraction of the muscles of animals which we know is lost when their connection with the brain is cut off; I feel persuaded that such phenomena cannot be brought about but by something that is material.

Instances are not wanting to prove, that the brain, considered as an organ, is not a sensitive part; considerable portions of it have been lost by sloughing, during which the patient complained of but little pain, was sensible, and ultimately recovered. A case similar to this was lately published in one of the periodical journals. It is only when the brain is inflamed, when its functions are disturbed, or the matter which these functions produce irritated, that it becomes exquisitely sensible; and then the effects which are ascribed to it are many times increased. The ideas of a patient labouring under phrenitis succeed each other with astonishing rapidity. The various passions of the mind, by turns, engross for a few moments the whole of his attention, and these are strongly pourtrayed by the continual changes of the countenance. The energies of his mind are equalled by the powers of the body, for the increase of strength which his muscles receive is truly astonishing; so that a weakly man may, during a paroxysm of phrenitis, require the efforts of several to confine him in bed. If we add to these symptoms of the first stage of an inflamed brain, the debility of the organ, (as evinced by torpor, lassitude, and idiotism,) which supervenes on the accession of the second stage, we shall, I think, have sufficient evidence for believing, that the brain is governed by the same laws as the other organs of the body, which secrete fluids each peculiar to itself.

The increase of muscular power consequent on an excited brain, and the extreme weakness of the muscles which follows this excitement when the organ is in a contrary state, are evidences in favour of a nervous fluid; by this term I mean a something generated in the brain of a highly stimulating nature, which, being sent to the muscles through the medium of the nerves, produces certain effects, which are increased when the brain is excited, diminished when this

organ

organ is in a state of debility; but what this something is, by what means produced, whether by a secretory process analogous to the other organs, or by an agency which at present we know nothing of, I shall not presume to give an opinion.

Pressure, in proportion to its quantity, retards the functions of the brain, at least so far as voluntary motion is concerned; but pressure, however long continued, does not necessarily destroy the vitality of the organ, nor hinder the common actions of the body from going on in it which are required for its due nourishment;* hence we learn, that, in common with the secreting organs, two actions go on in the brain, the one necessary for its vitality, and the other for the development of its functions. These facts are still further proofs of the existence of a nervous fluid; they shew us that the brain when pressed upon, continues to live and to be nourished, while its connection with the muscles, through the medium of nerves, is precisely the same as before the pressure; notwithstanding which, the muscles lose their contractile power and remain passive; remove this pressure, and what follows? the brain, if not disorganized, resumes its functional actions, and the muscles again become obedient to the will.

The nervous fluid, then, is the connecting medium between the willing power of the mind and the moving fibres of the body; by the first the design is conceived which the others execute; cut off this connection, either by obstructing the passage of the fluid, or by destroying the functions of the brain, and the muscles will become inactive and apparently lose their contractile property.

We need not go far for evidence to prove, that a most powerful agent can exist in a state not cognizable to our senses; I mean the matter which emanates from an excited electrical machine or a galvanic battery; for matter (I again repeat) cannot act where it is not, and consequently when I see a body violently acted upon and decomposed by simple contact with a wire, the other end of which is connected with a peculiar arrangement of two metals and water, I cannot help being satisfied that this phenomenon is brought about by a material agent, and which passes from that arrangement, by means of the wire, to the body acted upon.

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* In proof of this, I beg Londinensis will recall to his recollection, the case of the sailor who was trephined in Guy's Hospital, and who ultimately recovered, after having been in a state of insensibility for more than twelve months.

In

In answer to the last query, I shall say but little. I fully agree with the distinction which Mr. Abernethy has drawn between hypothesis and theory; and, strictly speaking, I have not the vanity to suppose, that any thing which I have written amounts to more than an hypothesis.

Clifton, Bristol; C. W. SMERDON.
April 8, 1815.

For the Medical and Physical Journal.

Some Observations on Ptyalism, with Cases; by W. ROBERTSON, M. D. A.O.L. and C.C.E.

"Sans doute mucus animale a ses mouvements, sa surabondance, ou son exces, ses metastases, ses transports lents ou subits sur d'autres parties. Examinee dans celle nouvelle face, l'humeur muqueuse doit interesser les medicins, &c.*"—*Annales de Mus.* vol. xiii. p. 61. Paris, 1808.

SAUVAGES (Genus 261), Linnè (177), Vogel (109), Sagar (197), and Cullen (120), each take notice of this disease in their respective Nosologies, and the latter observes, "Si quis ptyalismus idiopathicus sit pro eo habere vellem, ptyalismum a laxitate." S. sp. 4, tom. 2, p. 345.

Ptyalism, as a symptom of disease, is by no means a rare occurrence, and, as a consequence of the introduction of mercury into the system, is a well known affection; but the subsequent cases do not arrange themselves under either of these heads, being referable to an idiopathic disease. The quantity of saliva, afforded by the salivary glands in a state of health, is very considerable, as is known from practical observations; † and this secretion appears to be essentially requisite to the well-being of the animal economy, not only in the performance of mastication, but in the process of digestion; for, when this fluid is ejected from the mouth, instead of being permitted to pass into the stomach, dyspepsia, hypochondriasis, and a variety of chronic evils are the invariable consequences. It is of importance also to observe, that, when the system has once put on the condition of an increased secretion, whether from disease or the pernicious use of stimulants and narcotics, it is with some difficulty that the

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* Dr. Bostock, in his excellent disquisition on Animal Substances, (Edinburgh Medical and Surgical Journal, vol. i.) considers mucus as constituting one half of the solid contents of saliva. See Fourcroy and Vauquelin on Animal Mucus, p. 61, vol. xiii. Dr. Pearson, Philosophical Transactions, 1809. Fordyce, Thesaur. Med. vol. ii. Bichat, Traité des Membranes, p. 32.

† Vide Academ. des Sciences, 1719, mem. p. 402.

habit

habit of determination to the salival glands can be obviated, even though the causes by which it may have been primarily induced, are withdrawn.* A knowledge of this circumstance, conjoined to the certainty that the continuance of the ptyalism, by impairing the function of digestion, and inducing a general relaxation of the system, exerts a powerful influence in prolonging the disease itself, should operate as a cogent motive for combating the affection as soon as it becomes apparent.

In the first of the subsequent cases, the disease was of short duration, though accompanied by the characteristic symptoms of laxity of fibre and sallowness of complexion, which were so predominant in the second case, of two years continuance; yet none of the most powerful medicines of the tonic class seemed to have any influence, either in permanently obviating the general laxity of the system, or in diminishing the inordinate determination to the glands of the fauces. The disease ran its course, till, apparently checked by atmospheric influence, it gradually subsided.

The other two cases appeared to yield immediately to the remedy prescribed for their cure, and have not re-appeared. The disease, in one of the three cases, was attributed, by the party herself, to the use of mercury, though that medicine had not been exhibited for two years previously.

It will be remarked, that these cases occurred in the autumnal months, or were so much aggravated at that season, as to require medical aid; a season in which there exists an evident relaxation and repressure, as well in the animal as vegetable kingdoms.† It will, no doubt, be noted also, that the disease appeared at periods of life when considerable changes are wont to occur in the human system.‡

CASE

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* See an interesting case in the Medical Transactions, as related by Sir George Baker, in which the ptyalism continued apparently from habit, after the cause (a mechanical one) had been removed.

† This liability or predisposition to disease in autumn is noticed by most of the older writers, who attended much more to this subject than modern physicians do. Celsus, in particular, observes, "per autumnum vero, propter cœli varietatem, periculum maximum est." "Quo fit ut autumnus plurimos opprimat. nam fere meridianis temporibus calor: nocturnis atque matutenis, simulque etiam vespertinis, frigus est. Corpus ergo & æstate, & subinde meridianis caloribus relaxatum, subito frigore excipitur."—De Medicina, cap. 3, lib. 1, & cap. 5, lib. 2.

‡ The subject of the first case had arrived at that period, when the catamenia, for the most part, take their final leave, though

Case I.—September 5, 1814. I was requested to visit Mrs. ——, ætatis 44, who complained that she laboured under a constant overflow of saliva, which not unfrequently passed involuntarily over the lip in a stream, an occurrence which was particularly obnoxious to her, and disgusting to those with whom inclination or necessity induced her to associate. The quantity excreted in the twenty-four hours might be two pints, but there was considerable variation in this respect, which variation, however, was not referable to any known cause or law which she could assign. On some days it did not exceed a pint; on others it amounted to three times this quantity. She found her strength (both corporeal and mental) much impaired at the expiration of a month's continuance of this disease, and, within a few days, she had become oppressed with flatulence, low spirits, and irregularity of the bowels. She felt, to use her own phraseology, "relaxed all over." She also remarked, that on one or two occasions, she had swallowed the superabundant saliva, but so much nausea (which terminated in a diarrhœa) had been induced from this cause, that she had resolved not to repeat the experiment. In other respects her health was much as it was wont to be. It appears, that, two years ago, she was under the necessity of undergoing a course of mercury, for the cure of a local disease, to such an extent as to induce ptyalism, and to have that condition kept up for some weeks. She conceives that her present disease (which commenced a month ago) is a consequence of the course of mercury she had previously undergone.

On inspection, the gums appear pale and flaccid, and there is no perceptible fœtor. The body indicates much flaccidity, conjoined to corpulency. The face is pale, puffed up, and sallow; the lips little tinged from the blood's colour,

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there had not occurred any symptom indicative of that event: on the contrary, the patient menstruated regularly. The second case was that of a youth of fourteen years of age, whose voice was of the neuter gender, and whose masculine form was only about to be evolved. The third instance of this disease, was a female who had arrived at that æra when the body undergoes many changes from age alone.

We have also witnessed this disease as a precursor of a fit of gout, though the latter did not seem to influence the progress of the former. See Heberden (de destillatione) Comment. p. 124, who, in writing of this disease (ptyalism), observes, "Podagra supervenit sine profecter." The gout, for the most part, "appears at a certain period of life when the system is liable to a loss of tone."—See Cullen's Pathology of this disease, vol. ii. p. 85.

and

and the mind appears to labour under dejection, listlessness, and apathy. Pulse 60. Skin cold and clammy. Catamenia regular, both in relation to time and quantity. She has never been subject to hysteria.*

℞. Aloes Socotrinæ, Pulveris Rhabarbari ā ā ʒiſs.
Extracti Gentianæ, ʒſs.
Syrupi Zingiberis q. s. fiat massa in pilulas l. dividenda, quarum sumat. 3 pro dosi 3tia quaque nocte.

℞. Decocti Cinchonæ, ℔. i.
Tincturæ Muriatis Ferri, ʒij.
M. Capiat, ʒiſs. ter in die. Descendat in balneum Aquæ frigidæ summo mane indies.

℞. Corticis Quercus concisi, ʒij. Aquæ, ʒxij. coque ad colaturæ, ʒviij. & adde Aluminis Sulphatis, ʒi. Syrupi Rosæ, ʒſs. Utatur pro Gargarismate, in horas vel sæpius.

12th. Has used the medicines assiduously. The quantity of saliva has somewhat diminished, and her strength is improved. Continuentur Remedia.

19th. Little amendment. Continuentur Medicamenta.

26th. Ptyalism continues with little or no abatement. Omittantur Decoctum Cinchonæ & Pilulæ. Sumat Vini Aloes ʒſs. omni nocte & mane.

October 3d. Ptyalism much diminished, which she attributes to a frequent exposure to the atmosphere, which is now cold.

10th. Ptyalism gone; is in her usual health.

Case II.—November 6th. I was consulted by the parents of Mr. ——, a youth of fourteen years of age. Two years ago, he was attacked by a contagious fever, which confined

* See Heberden Comment. (de destillatione) who observes, "menstruis inordinatis, inter alias valetudinis perturbationes subsecutum est immodicum salivæ profluvium; quod etiam mulieres hystericæ expertæ sunt in duos tresve menses, perinde ac si vivo argento delebutæ fuissent," p. 120. I, however, experience some doubts in conceiving a ptyalism of three years' duration, being induced by a moderate use of mercury alone. Heberden seems to attach doubt to the propriety, in many instances, of suppressing this affection, and hesitates whether it should be designated a disease or a remedy; but surely a malady of this nature, which, from habit, (so powerful an agent in the animal economy) is apt to become permanent, and is so disgusting in itself, independent of its consequences, should be suppressed as soon as may be, in every instance.

him three weeks to the house; during his convalescence, he experienced a constant inclination to spit, so much so that he could not sleep from the unremitting flow of saliva which wetted his pillow, and rendered him otherwise most uncomfortable. This discharge has continued ever since, decreasing, however, very considerably during the warm months of the year, and attended by a proportionate augmentation in winter. He conceives that the great excretion of perspirable matter which uniformly takes place from his skin during summer, and the suppression thereof in winter which occurs as regularly, may be considered as the causes of the alternations above-mentioned. Having never used any receptacle to contain the saliva, he, consequently, has formed no determinate idea of the quantity excreted, but says, that it is very great. He is of a slender form and sallow complexion. The surface appears greasy, and his hands are cool and clammy. Functions natural.

℞. Pulveris Jalapii ʒi.
Gummi Gambogiæ gr. xv.
Olej. Menthæ gtt. iij.
Syrupi q. s. fiant Pilulæ xv. Sumat 1 pro dosi 3tia quaque nocte.

℞. Oxidi Bismuthi Albi gr. v.
Pulveris Gummi Tragacanthæ gr. xv.
M. Sumat ter in die ex quovis vehiculo crasso.

19th. Ptyalism much reduced in quantity. Continuentur remedia.

20th. Spitting has ceased. Omittantur Medicamenta.*

Case III.—December 2d. My advice was requested in favour of Miss ——, æt. 65, who, for some weeks past, has been afflicted with ptyalism, which commenced without any apparent cause. She is confined to her bed-room, where I found her sitting with the usual chamber bason, nearly one half full of saliva, which she averred to have flowed from her mouth in the course of the morning, and that the amount in the day reached from two to three pints

* The oxyd of bismuth was recommended by Dr. Marcet as a remedy in gastrodynia.—See Memoirs of the London Medical Society, vol. v. And also by Dr. Bradsley, Medical Reports, p. 218. But it is to Dr. Odier, of Geneva, that we are indebted for the introduction of this valuable oxyd. We have found it a medicine of unequalled efficacy in many affections of the stomach, attended by a general want of vigour. Its eminent quality in relieving and curing gastric diseases, attended by this condition of the system, first suggested to us its use in ptyalism.—See Journal de Medicine par Corvisart, vol. xiii. p. 280.

generally.

generally. She expressed the utmost abhorrence of the disease, and conceived that its commutation for extreme pain would be desirable. She observed, that, with the exception of occasional attacks of stomach complaints, she had enjoyed excellent health. Pulse 65, and of good strength. Visage sallow, and eyes a little tinged from bile. Skin cold, clammy, and flaccid. Has never been subject to hysteria, nor has she, to the best of her knowledge, ever used mercury. Bowels irregular. Urine high coloured.

℞. Submuriatis Hydrargyri, gr. v.
Pulveris Jalapii, gr. x.
Olej Menthæ, gtt. ij. Sumat statim sub forma boli pro cathartico.
Capiat Vini Aloes, ℥i. 3tia quaque nocte. Applicentur bona somni Cataplasmata ex semine synapeos, pedibus, more solito.
℞. Oxidi Bismuthi Albi, gr. x.
Pulveris gummi Tragacanthæ, gr. xxv. M. Sumat ter in die, ex Syrupo.

9th. Feet still sore from the synapisms. Ptyalism considerably diminished, one half at least. Continuentur remedia.

17th. Spitting nearly gone. Continuentur medicamenta.

24th. The ptyalism has ceased. Omittantur medicamenta. Capiat infusi Cinchonæ, ℥ss. ter in die cum Tinctura Muriatis Ferri, gtt. xv. singulis dosibus.

31st. Is free from complaint.

For the Medical and Physical Journal.

On General and Local Disease; by Dr. KINGLAKE.

IT is probable, that diseases of every description, however general may be their aspect, have actually in the onset a local origin. The concert of health may be variously disturbed, and whatever part may more particularly suffer from whole system. The slightest deviation from the healthy standard becomes, in the part in which it may occur, a diseased state, which may, after there exciting a disordered action, either wear itself out in that situation, or may be extended to the system, and induce an affection more or less severe, and of such character as circumstances of sympathy and visceral participation might occasion. It is difficult to conceive a state of universal disease at the commencement. Morbid causes do not at once subvert the healthy actions of life. An hurtful impression is first made on a part of the system that may have been more particularly exposed to

noxious agency, and from thence it spreads and assumes a more general form. It is in this local and sympathetic way that diseases originate, extend, and diversify their character. Were the invasion of the general health to be more abrupt and universal, the attack would often prove in the first instance destructive, but its local and progressive character affords time for salutary resistance, for awakening a condition of re-action that tends to subdue disease, and to restore the healthy state.

Intimately connected as every part of the animal system is as well by continuity of general structure as by associative laws of action, the transfer or extension of a partial disease to another situation, or its equable diffusion over the frame, is a natural and inevitable operation of vital power. Local diseases are often dissipated and finally annulled by extension. The concentrated power which morbid action has, when exerted within limited boundaries, is expended, and consequently weakened when indefinitely distributed. The actions of health are strong by natural arrangement, by habit, and by associative influence; they are, therefore, not to be overcome, but by a degree of force in the morbid impression that may be capable of superinducing its own peculiar influence. Although this effect of disease may have been successful, the tenure of its ascendancy over the actions of health is at best precarious if left to itself; and, in most instances, where change of structure has not been induced, may be subdued by suitable aid. The local and general forms of diseases, may mutually originate from each other, and have commonly much reciprocity of influence. The unhealing sore may awaken morbid excitement throughout the system, whilst any ailment in the general functions may greatly aggravate the conditions of local disease. Morbid action, whether locally or generally prevailing, is capable of considerable influence in its stimulant operation in affecting the natural conditions of vital motion, but it is in the derangement it might occasion in the digestive and various secreting functions that its pernicious effect is most to be apprehended. The actions of muscles, blood-vessels, nerves, or any other part, may be disturbed without any serious injury being the result, the occurrence may not be lasting, and the natural state would quickly be restored; but, when the chylopoietic viscera, the secreting office of the liver, kidneys, and of the glandular structure at large, are involved, deep and threatning mischief is induced, and only to be remedied by so far overcoming the diseased changes in the action of the secerning vessels, as will go to reinstate the healthful condition. The morbid sympathies generated by

the failure of healthy action in the digestive and secreting functions, are various and severe, and often assume an originality of character that imposes the aspect of idiopathic affection. It is of practical importance, to make a correct discrimination on these occasions, that the remedy may be applied to the cause, instead of being unavailingly directed against an effect.

Local diseases, originating as such, or supervening a disordered state of the system, exert an hurtful influence on the digestive and secreting functions of life. Were a disease strictly local, in situation and effect, its importance would not exceed the limit of its boundaries, it might disturb and even damage the structure of the part forming its immediate seat, but that would be the extent of the mischief; the various visceral functions would not be involved, and it is obvious, that without their participation no serious danger to life could arise: but this is rarely the case. However slight the local disturbance might first be, it has a tendency to draw into its condition the vital action of the system at large, and more particularly that of the chylopoietic viscera, the glands and lymphatics. When this is the case, the distinction of local disease is unimportant; it so far assimulates the general to its own particular state as to induce universality and identity of disease. The same morbid influence on the whole system would result from any particular viscus taking on, in a disproportionate degree, any disease which might be existing in a general form. After the ailment shall have located itself, it will have infinitely more effect in disturbing the function of health, than when the cause of disease was more extenuated by being more equally diffused over the system; thus it is, that more is to be dreaded from the tendency and progress of local diseases in deranging and subverting the vital functions, than from the diseases which affect more equally, and inflict no inevitably destructive injury on any particular organ. The curative indication in all diseases, whether assuming a general or local form, must, in the first instance, be chiefly directed to the state of the vital organs. The smallest derangement in the function of either of these parts may lead to destructive consequences, and, even if that magnitude of injury should not ensue, it will tend, by vitiating the active conditions of vital power, to generate morbid susceptibilities that may become a fertile source of various distempers. Pending the existence of visceral disease, it cannot be supposed that any deviations from the healthy state in other parts can be corrected and restored. It becomes, then, a subject of the utmost moment in instituting a plan of cure for any serious disease to look

well

well to the conditions of the various functions of life, more particularly to those of the chylopoietic viscera. The stomach, intestines, mesenteric glands, liver, and pancreas, contribute so much severally and collectively to the support of health, that their healthful state should be an object of the first attention; hence, the pre-eminent benefit of keeping the bowels lax by suitable cathartic medicine, as it tends to keep up the biliary secretion, to prevent the mesenteric glands from being oppressed and obstructed, the diaphragm from being pressed on, the liver from being irritated, and, in connection with these benefits, it secures the incalculable advantages of healthy sympathies or associative actions throughout the system. When the stomach, bowels, and liver, duly contribute their respective parts in the digestive function; vigour and freedom from disease are the common result. If local disease has disordered this important function, it serves to shew with what detriment it acts, and that its hurtful influence should be restrained by the most efficient means; on the contrary, if the digestive function, the mainspring of health, and the sovereign remedy for local disease, should be impaired, every endeavour should be exerted to correct its ailment, and to reinstate it in its natural vigour and harmony. This may be commonly effected by duly evacuating the contents of the alimentary canal, and by observing a course of abstinence that will secure against the injuries of redundance and oppression.

Taunton; ROBERT KINGLAKE.
April 20, 1815.

For the Medical and Physical Journal.

On the Treatment of Wounds and Ulcers, and Hæmorrhage; by Mr. RICHARD WALKER, of Oxford.

(Continued from p. 230.)

THE propriety, as I have inculcated, of dressing certain ulcers and sores every morning at an early hour, and every evening, viz. at about equal distances of time in the twenty-four hours, is an extremely inconvenient circumstance to the practitioner; but the comfort and utility of it to the patient is incalculably great, and the necessity of it, in serious cases, indispensible.

The application of dry lint to sores is much more important than is ordinarily apprehended, and not so obvious in the mode of management as is commonly conceived. In addition to the ordinary intention, and mode of using it, I shall observe, 1st, that it is necessary as an absorbent of matter,

matter, by which it likewise tends to cleanse, and keeps sores in a clean and healthy state; 2dly, it keeps down exuberant flesh or granulations; and 3dly, it acts as a desiccative and cicatrizer. In this latter intention, used according to the following method, it supersedes in utility the various absorbent powders, commonly used for this purpose, viz. lapis calaminaris, creta, &c. particularly in sores of large surface, as in burns, scalds, excoriations, &c.

I apply dry lint to sores from the beginning to the end of the cure, or at least so long as there is any discharge, under the plaster, whether it be adhesive plaster or cerate, adjusting the quantity so as it shall be just sufficient to absorb the discharge, of course diminishing it gradually, till at last, as in small sores, I use the mere down of the lint; and in all cases (except where pressure is required, as in redundancy of flesh, or to give firmness to the part) I lay it on as loosely and as lightly as possible, so that the plaster or cerate may apply, as it were, between or through the interstices of the lint; and when such sore is small, and very nearly healed, I apply the lint beyond or somewhat over the edges of the sore, observing, however, that it be so thin, as that the dressing of cerate over shall bring it clean off, without sticking to or tearing the edges. By this means, and a moderately tight roller, sores may be healed more firmly and naturally than by the application of ordinary cicatrizers, so called; and this method I prefer, where it is efficient, to the ordinary escharotic applications, as the nitrate of silver, sulphate of copper, &c. in cases of exuberant granulations, conceiving this a much more natural way, and the cure, in consequence, more firm and perfect.

In the extensive superficial sores which succeed to burns or scalds, and likewise in excoriations which discharge a thin acrimonious fluid, I strew them over lightly, after the manner above-mentioned, with the down of lint, and apply a dressing of drying cerate spread on fine soft old linen.*

It is necessary to remark here, that, under certain circumstances, the application of dry lint, under plaster or cerate, is injurious, viz. when it is not thrown or brought off by the dressing. This happens in certain dry or crude sores, and is frequently the case in persons whose occupation requires them to stand or walk much during the cure.

In all instances of recent wounds, it is of importance, for expedition sake and, to prevent a scar, to keep in view the

* The drying cerate I use, is the one recommended by me in the same intention, in burns and scalds; and linen, in such cases, is much preferable to lint.

prospect,

prospect of healing by the first intention, as it is called: therefore, in all instances where the hæmorrhage, though troublesome, proceeds only from small vessels, the lips of the wound should be brought into close contact, and the part encircled or surrounded, if it can be, as in the wrist, fingers, &c. by strips of adhesive plaster, wrapping well over each other, and afterwards secured by moderately tight bandage.

My method, in such cases, is to place a line of lint, alone, or covered with flour, in the direction of the wound, as a kind of check to the hæmorrhage, previously to applying the plaster, &c.

If, however, it be necessary, in order to stop the hæmorrhage, to introduce agaric, or floured lint, within the wound, the gap thus made should, as in every other instance of wounds or ulcers, be afterwards brought progressively together, as much as possible, by the due application of adhesive plaster and bandage at every subsequent dressing.

With respect to the fittest kind of adhesive plaster, as an application to sores and ulcers, such should be chosen (if not prepared by the surgeon himself) as is not so brittle as to scale off from the cloth, and which is so spread as to give a thickish or strongish coating to the cloth, and of a slight yellowish shining complexion. The adhesive plaster, procured from different manufacturers of this article, varies much respecting these particulars.

The ordinary progress of an ulcer or sore, except in the instances of certain fresh wounds, which are sometimes healed by the first intention, as it is called, may be divided into three stages, viz. digestion, incarnation, and cicatrization; the rules for effecting the former of these are comprehended in the foregoing directions.

With respect to incarnation, I believe I may venture to affirm, that there is no article known which possesses the quality, specifically, of generating new flesh in any wound or sore: this process, however, naturally takes place in every sore which is preserved in a perfectly clean and healthful state, and is, therefore, the necessary consequence of a judicious perseverance in the mode of treatment for digestion, &c. before described.*

The cicatrization of sores, in my opinion, should be effected, if possible, by the judicious application of dry lint, proportioned to the dimensions of the sore, laid lightly on,

* Certain preparations of mercury, as the nitric oxyde of mercury, &c. act by producing a fresh clean surface on a sore, and thus promote, in a peculiar degree, the generation of new and healthful flesh.

using

using in small sores the down of the lint only, diminishing the quantity according to the contraction of the sore, applying over the lint the ordinary plaster, or, which is sometimes better, a drying goulard cerate of hardish consistence, with proper bandage dextrously applied with due pressure, which very much facilitates this intention.

I have found, especially if adhesive plaster be used, that the thin stratum of lint is applied with best effect, for skinning over the edges of a sore, by being extended somewhat beyond the edges of the sore, thus acting as a desiccative, and consequently as a cicatrizer.

By this method, sores, I am convinced, are healed more firmly and uniformly, wherever pressure can be made, than by the artificial means of cicatrizers, so called, of any description. Moreover, any exuberant granulations may, ordinarily, be prevented from rising, or be removed by this means, and consequently, much unnecessary pain spared to the patient, incident to the application of escharotics.

If, however, cicatrizers or escharotics are found indispensibly necessary for either of these purposes, the argentum nitratum, or cupri sulphas, may be used either in substance or in solution.

Having long observed that cicatrization by either of the above articles, especially if used in the solid state, is not of so firm or natural a state as by the means I have recommended, I carefully avoid (should I have occasion to touch the central or inner parts of a sore) applying it, especially if it be the cupri sulphas, to the edges of the sore.

In large fungus sores, of course, even the lapis infernalis must occasionally be resorted to. Argentum nitratum possesses the property as a coalescent as well as a cicatrizer, to such an extraordinary degree, that by the skilful application of it, either in its solid state, or in solution, according to circumstances, assisted by compression with bandage, the detached parts occurring in ulcers of every description almost, particularly scrofulous or venereal, may be readily made to coalesce and heal firmly, as I have ordinarily experienced; and, in some instances, even sinuses, by injection and pressure.

Small sores, which have resisted long the ordinary means, are sometimes healed at once, or disposed to it, by a touch of the argentum nitratum, and sometimes by the ceratum hydrarg. nitrat. rub. The former is indicated in an inactive or sluggish state of the sore; and the other when foul, or covered by thin sordes, which adhesive plaster may have failed in removing.

I consider the introduction of adhesive plaster into gene-

ral practice as an application to ulcers and sores, according to the plan of Mr. Bayntun, as a discovery, for so I presume I may call it, of the first importance, for utility, in surgery.

Whoever has experienced the manner of treating sores and ulcers, previous to the introduction of Mr. Bayntun's method, which is of late date only, and appreciates duly the value of the present improved method, comparatively with the former, must, with myself, consider it as a truly great acquisition.

It happens, however, that persons who have entered into the profession since the introduction of this improved method, adhere to it, as I have witnessed, too implicitly, and are, moreover, at a loss how to proceed when a deviation from this mode becomes necessary.

The use of adhesive plaster admits almost of a general application, with respect to utility; but there are, nevertheless, certain exceptions to its use, which I shall endeavour briefly to point out.

The beneficial effects of this application, independantly of, or in addition to, its well known use in retaining or approximating the lips or edges of wounds and ulcers together, depends, as I consider it, on the following principles:—1st, in excluding, effectually, the external air from such sore; 2dly, by keeping the pores open, that is, occasioning, ordinarily, a sensible exudation from the surrounding skin; and 3dly, by cleansing and promoting, specifically, the digestion of such sore: which effects are not so well produced, in ordinary sores or ulcers, by any cerate or unguent.

From this brief statement of the means by which adhesive plaster acts upon ordinary sores and ulcers, it will be apparent where its use should be adopted and where rejected, viz. in all instances where considerable excoriation or intense inflammation occurs, and in certain irritable sores, unless in such instances it produces a salutary discharge, which operates in removing or diminishing such effects, it should be forborne, till these have subsided, and other means, as anodyne and emollient fomentations and poultices, adopted.

Much also depends upon the composition and consistence of the plaster. I am not prepared to give what I consider the fittest formula for this purpose; neither, indeed, can any precise formula be given, to suit, equally, every variety of circumstances respecting the state of the sore and the patient. In general, however, it should be moderately, or rather strongly adhesive; of such a consistence and composition as to be hard and tenacious, without being brittle, or liable to scale off from the cloth; and lastly, it should

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have a fair or strong face upon the cloth on which it is spread, and, when taken off, should leave none of the plaster behind adhering to the skin.

It must not be forgotten, that even in some instances where the application of an emollient or drying cerate is more adapted to the sore itself, that a covering of adhesive plaster may be serviceable, for the purpose of drawing or approximating the skin and lips of the sore towards contact.

In all cases where the object is to approximate or bring together the edges of a wound or ulcer, of course the greatest purchase for that purpose should be made; this is best effected, where the part will admit of it, by surrounding the limb with the plaster in the manner mentioned when speaking of its application in hæmorrhage.*

N.B.—In a certain dry or harsh state of the skin, accompanying sores or excoriations, I have found that goulard liquor, used either for a poultice or a lotion, is not so proper an application as milk, milk and water, or water alone, used after the same manner. Likewise, where an exudation from the skin is desirable, certain leaves possessing a kind of extractive relaxant property, as the young leaves of the colewort or cabbage-plant, prepared in the usual manner, and applied over a dressing immediately covering the sore, is occasionally serviceable.

With respect to the efficacy of an issue, as a substitute for habitual sores or ulcers, and the mode of managing it, I shall have occasion to speak of hereafter.

With regard to any medicines which might be necessary in sores or ulcers, not depending upon, or connected with, any specific constitutional affection of the system, cooling aperients, with an antiphlogistic regimen; or moderate doses of calomel, as an alterative; or the bark, as a tonic; and opium, as a sedative or anodyne; each, according to circumstances, will, in ordinary cases, be all that may be required; recollecting, as a restorative or corroborant, never to forget the most efficacious of all means, viz. due regimen, and a moderate administration of cordials, of which good port wine or Madeira are the best.

It is at this time the fashion to administer the bark in port wine, thus combining in one medicine, where a cordial and tonic are both judged necessary, the respective powers

* In order to prevent tumefaction or tension coming on, or to remove it, if present, which is frequently the case in fresh wounds, the same means may be resorted to, respecting the application of cold, &c. as is mentioned in the treatment for hæmorrhage.

of each. I am of opinion, however, that the proper time for administering bark in such cases, whether in substance or decoction, is at due distances between meals; but the port wine, as a tonic cordial, never, unless under certain temporary urgent circumstances, upon an empty stomach. It may be proper to join some aromatic with the bark, as confectio aromatica or pulvis zingiberis.

Oxford. RICHARD WALKER.

(To be continued.)

For the Medical and Physical Journal.

Case of Amaurosis; by Mr. CROWFOOT.

IF the following case be thought worthy the notice of my professional brethren, you will please to give it insertion in your valuable Journal.

The symptoms and treatment previous to my seeing the patient, were communicated to me by Mr. Dashwood, and to that gentleman I owe the opportunity of the subsequent treatment.

S. L., aged 29, applied, on the 3d of February, for a pain on the top of the head, which, in a short time, had become so intolerable, as to render her incapable of attending to the duties of her family. She made no complaint of fever, nor could she attribute it to any blow or fall she had received. Her general health, which is at all times delicate, was not particularly impaired; nor was there any constitutional cause to which it could with propriety be assigned. She was the mother of one child, and, from the suppression of the menses for three months, might possibly be again pregnant.* But this could hardly be the cause of her present sufferings. Blisters upon the temples, and a bolus containing four grains of calomel, with a saline aperient draught, speedily and *completely* removed the pain. But she now spoke of imperfection in her sight, complained of a mist before her right eye, which gradually affected the left also; and, in the course of forty-eight hours, she was in a state of total darkness. Small doses of sulphat of zinc, with Cayenne pepper, were tried for a week or ten days, from which she thought she derived some benefit to her general health, but with no alleviation of the complaint. About the 15th I first saw the patient, with Mr. D. At this time she had no head-

* A few weeks after, these doubts were removed, by a regular return of the menstrual discharge.

ach,

ach, nor did she describe any uncomfortable feeling (except the loss of sight before mentioned). The pupils were fully dilated, and quite insensible to the strongest light. The powerful agency of electricity promised to be most efficient; but we were by no means sanguine in its advantages. A cautious trial, however, was proposed and adopted. Sparks, at first slight, but gradually increased in number and intensity, were daily taken from both eyes; and this plan was uninterruptedly pursued for three weeks. After five or six days, she expressed with some confidence an amendment, without, however, being able to furnish us with any proofs of her progress. But, to use her own words, "there was a general sense of light, without being able to discriminate objects." At the end of a fortnight, she surprised us most agreeably by distinguishing some large letters painted upon the door, and so rapid was her improvement from this time, that it soon became unnecessary to persist in the remedy. I have only further to add, the patient continues well at this time, and is able to work with her needle by candle-light.

WILLIAM JOHN CROWFOOT,
Memb. of the Roy. Coll. of Surg.

Beccles; April 26, 1815.

For the Medical and Physical Journal.

Case of Injury of the Hip confounded with Dislocation, and Fracture of the Neck of the Thigh-Bone; by Mr. JOHN O. YEATMAN, of Frome.

IT is by no means rare to find surgeons baffled in their opinions concerning the nature of certain injuries to which the human body is liable; and, as this leads them to differ on the plan of treatment, it is of most importance to record even a single case in which there is a difficulty of pronouncing a judgment.

A private of a regiment of foot, æt. 38, robust, fell from the top of an embankment upon the left buttock. He was carried to the Regimental Hospital immediately after receiving the injury, when I saw him.

The whole of the left buttock was considerably enlarged, particularly behind the usual situation of the great trochanter. This enlargement, or swelling was attended with slight discolouration of the skin, and hard to the touch. The limb was shorter by about three-quarters of an inch than its fellow, was drawn forward and upward in an oblique direction towards the opposite thigh, with the foot turned inward. The patient had no power to move the limb, nor did he complain

complain of pain when it was moved by me. The great trochanter was not to be distinguished, in consequence of the swelling.

After some consideration, I regarded the case as a muscular injury, in which several or all of the extensors and abductors, and more particularly the rotators outwards, had partially or wholly lost their tone by the blow. In that event, the thigh would, doubtless, be drawn into the position above described, and be retained therein by the flexors, abductors, and rotators, inwards—the antagonists of the former sets of muscles. This opinion admitted, the man would be unable to move his limb, and no particular pain would ensue on its being moved by another. The swelling of the buttock might have arisen from extravasation of blood between the layers and fibres of the glutei muscles, and all the circumstances of the case in this way explained.

The surgeon of the battalion, however, thought it a dislocation of the femur, and took the usual means to effect its reduction, which produced no other consequence than an increase of the subsequent inflammation. A third medical friend was disposed to believe it a fracture of the neck of the thigh-bone.

Now, supposing the head of the femur had been thrown upward and outward upon the dorsum of the ilium, where the swelling was situated, the limb would have been from two to three inches shorter than before, and could not have been moved without difficulty. If it had been dislocated upward and backward, with the trochanter major forward, and the head of the bone backward, the same would have occurred, with this addition, that the patient would have experienced great pain on my moving the thigh-bone outward, and the fibres of the triceps would have been found upon the stretch; in both instances a hollow would have been discoverable in the situation of the acetabulum; indeed, great pain, immobility, and a far more considerable shortening of the limb, than took place in this case, were sufficient to distinguish it from any kind of dislocation to which it bore a similitude. And, on the other hand, had it been a fracture of the neck of the femur, the foot could have been turned outward, and crepitus, mobility, and extreme pain, would have been the attendant circumstances.

The treatment and result of the case, however, left no doubt on our minds as to its real nature; and, on this head, it will be enough to say, that bleeding, cold applications, saline purgatives, low diet, &c. were resorted to during the inflammation which ensued, and that blisters and other local stimuli

stimuli, were subsequently applied to the injured muscles. The swelling subsided, the limb gradually returned to its natural position, and in the course of a few months the patient was able to walk. JOHN C. YEATMAN,

Member of the Royal College of Surgeons, &c.

Frome; May 8th, 1815.

Memorandum.—Two cases of recovery from an immoderate dose of laudanum, analogous to that which I narrated in No. 184 of the Med. and Phys. Journal, are recorded in the Journals for March and the present month. Mr. M. Rowe, the author of one of them, adds, "From an attentive observation of this case, and of the symptoms which were manifested throughout, I am induced to believe, owing to the sedative powers of opium, that, had I had recourse to bleeding, (as recommended by Cullen and others,) it would not only have considerably retarded, but might eventually have endangered, the recovery of my patient." It gives me pleasure to notice that these cases and this opinion tend to strengthen the observations which, with other matter, are contained in my paper for August.—Vide No. 186, Med. and Phys. Journ.

I have been induced to remind your readers in this way of the importance of communicating the result of their practice in these cases, in order that we may in future have recourse to a safer and more settled plan of treatment than we have hitherto had in respect to them. J. C. Y.

COLLECTANEA MEDICA,

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, QUERIES, SUGGESTIONS, &c.

Relative to the History or the Art of Medicine, and the Auxiliary Sciences.

OFFICIAL REPORT *to the French Institute, by* MESSRS. VAUQUELIN, PINEL, *and* PERCY, *on the Manuscript Work presented to the Institute by* M. ORFILA, *entitled* "Toxicologie Generale."*

THE work which has been entrusted to us to revise, is comprised in two volumes, each divided into two parts, the first comprehending the mineral poisons, and the second the vegetable and animal poisons.

A complete

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* Several of M. Orfila's experiments on Poisons have been already communicated to the medical world, through the medium of

A complete treatise on this interesting subject was a desideratum in the medical jurisprudence; all those which up to previous possessed were either incomplete or incorrect in many particulars. We doubted into some of them from the bad method of ascertaining the nature of poisons; in others there was no description of the organic lesions produced by poisoned food, while the collection of every possible effect exhibited was far from affording adequate materials with which to meet every emergency.

It was necessary, therefore, in order to produce a book on the subject, such as might have been expected from the present state of science, to undertake a series of multiplied and highly delicate experiments; this precisely what M. Orfila has had the courage to undertake, and he purposes to attain the highest possible degree of perfection.

He first describes with care the physical and sensible characters of poisons in their natural state; he afterwards makes known the chemical properties of these substances, noting very exactly the phenomena which they present on the application of the greatest possible number of re-agents.

But what renders this part of his work more interesting, is, that he details the differences which any given poison, when mixed with alimentary substances of various kinds, exhibits with the same re-agents.

Poisons, thus mixing themselves in the stomach and intestines with various liquids, disguise their properties either by combining with or decomposing them. The antecedent researches of the author would have been insufficient for his purpose, if he had not studied, in a particular manner, the modifications which the bile, the saliva, the gastric juice, &c. are capable of imposing upon poisons.

In making these experiments, M. Orfila varied the quantities of poison from a dose so small as to be incapable of producing death, up to a quantity more than sufficient; circumstances which frequently produce differences in the effects occasioned by the re-agents.

When the author has well ascertained the characters of the poison in its natural state, and has pursued them through its mixtures or combinations with the alimentary substances, as well as with the humours which are met with in the stomach and intestines, he endeavours to ascertain the manner in which it acts in the animal economy, and the effects which flow from it. This is the physiological part. Sometimes an inspection of the organs affected has

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this Journal. The formal Report to the Institute, of which we have been favoured with a copy, details the whole of these interesting experiments in a more authentic shape, besides giving them the sanction of the high authority of the names of Vauquelin, Pinel, and Percy.

justified

justified his predictions; but frequently, also, the mode of action in most poisons is unknown to us: fortunately this is not the most imperfect branch of toxicology.

That which concerns us all most closely, is the art of preventing, arresting, or remedying, the deleterious effects of poisons: thus M. Orfila has collected, with great care, whatever has been written hitherto on counter poisons; subjected to new trials approved antidotes; and frequently, in discovering their fallacy, he has undertaken new enquiries, which have sometimes been followed with the happiest results.

It teaches us to ascertained that every thing which had been suggested as the counter poison to corrosive sublimate was really useless, and that the true antidote to this dreadful poison was albumen diluted in water. He made this experiment, not only on animals, but he had also an opportunity of verifying it on the human subject.

It was in this way also, that he ascertained, by repeated experiments, that the antidote of verdigrease is sugar,—a happy discovery, and which certainly could not have been attained by theory.

In the fourth article upon each poison, he traces, in some measure, for the use of police officers, the steps which they ought to take to ascertain the nature of the poisonous substance, whether it has been found in its natural state in any person's house, or has been mixed with foreign bodies; whether it has been vomited, or really found in the stomach or other organs of an unfortunate person who has died from its effects.

We cannot too highly praise the minute order and precision which the author has observed, and he seems to have felt deeply the serious consequences of an erroneous judgment in such cases.

The first volume of M. Orfila's Toxicology contains four classes of mineral poisons, viz. the mercurial, the arsenical, the antimonial, and the cuprous. The second volume treats of mineral poisons also, and the third of vegetable and animal poisons.

We have no hesitation in saying, that the work is as perfect as the present state of our chemical knowledge will admit; and we can assert, that the individual researches of the author have corrected many old errors, and added a great number of truths highly valuable to medical men, who are frequently called to give their assistance to persons poisoned; to the officers of police, whose business it is to see if there has been really poison employed; and finally to humanity itself. But we ought not to expect that the part which treats of vegetable and animal poisons should be equally complete, because, the nature of these poisons not being so well known as that of the minerals, their way of acting on the organs is, consequently, more obscure, and the methods of remedying their effects much more difficult. It is doing much, however, to have opened the career, to have pointed out the progress, and indicated the means of attaining the desired object. Time and experience will, it is hoped, gradually perfect this important branch of toxicology.

The second part of the first volume contains a description of the action produced on the animal economy, by the preparations of tin, zinc, silver, gold, bismuth, the concentrated mineral acids, the caustic alkalies, phosphorus, cantharides, lead, iodine; and in appendix, on the counter-poisons of corrosive sublimate, arsenic, and liver of sulphur.

He begins with the chemical and medico-legal part, and afterwards examines the effects of the poisons in a physiological point of view. This last part being almost entirely new, we shall present a succinct extract to the Class.

1. The muriate of tin injected into the veins, to the quantity of three-fourths of a grain, acts promptly on the nervous system, and produces death in ten or twelve hours. Introduced into the stomach, it destroys life, by inflaming and corroding it. Six experiments gave the same results.

2. A concentrated solution of sulphate of zinc acts by stupefying the brain, when it is injected into the veins; when introduced into the stomach, to the amount of an ounce, it produces vomiting only; but, if the œsophagus is tied, the animal dies in two or three days, and the stomach is much inflamed. Six experiments also confirmed these facts.

3. One third of a grain of nitrate of silver, dissolved in two drachms of water, introduced into the circulation, produced death in five or six hours, by acting on the lungs and nervous system. When 36 grains were introduced into the stomach, it was not absorbed, and the animal did not die until the fourth or fifth day, in consequence of the inflammation produced by this caustic. Six experiments gave the same results.

4. Three-fourths of a grain of muriate of gold dissolved in a drachm of water, and injected into the veins, gave death in five or seven hours, by attacking the lungs forcibly. When introduced into the stomach to the amount of twelve grains, the animal died in five or six days, and the stomach was corroded; consequently there had been no absorption. Five experiments supported these facts.

5. The nitrate of bismuth, injected into the veins, has its chief action in the nervous system, and kills animals. When introduced into the stomach, it inflames and corrodes it, acting at the same time, on the lungs, and destroying life very speedily.

6. Some drops of an acid or alkali, injected into the veins, produce death instantly, by coagulating the blood; the sulphuric acid carbonizes it, as it does in common vessels. Introduced into the stomach, it corrodes and perforates it, and the animals soon die, amidst bloody vomitings, frequently attended with most frightful convulsions.

The coagulation of the blood by the alkalies is remarkable, since they prevent this fluid from coagulating when it is drawn from the human body.

It results from all these facts, that the same poisonous substances

con

ous must be deadly influences on this or that organ, according to the point with which it has been brought in contact.

7. Ammonia and its sub-carbonate injected into the veins also coagulate the blood; but they act strongly on the nervous system. When introduced into the stomach, at the dose of a drachm or two, they produce death in a short time, and act upon the brain.

8. The muriate of baryte injected into the veins, introduced into the stomach, or applied externally, kills animals very soon, in the midst of frightful convulsions, acting on the nervous system. Six experiments proved this property. Mr. Brodie had already announced a part of these results.

9. Phosphorus, dissolved in oil, and injected into the veins, produces instant death, by being converted into phosphoric acid, which is exhaled through the nostrils, as Mr. Majendie had already witnessed.

When introduced into the stomach in small cylinders, it passes into the state of phosphoric acid, which corrodes the texture of this organ, and occasions death in a day or two: the stomach of the animal is found to contain less phosphorus than had been employed.

When the phosphorus is dissolved in oil, before it is given to the animal, it is transformed into phosphoric acid, and is destroyed in a few hours, and the stomach is sound. Of seven experiments proved this fact.

10. The acetate of lead, when introduced into the stomach to the amount of an ounce and a half, occasions abundant vomitings, and death intervenes ten, twelve, or fifteen hours afterwards. On opening the body, a true inflammation of the parts which surprise the digestive canal is found.

If it be curious to endeavour to counteract the effects produced in the animal body, by poisonous substances, when introduced either by the blood vessels, or by the mouth; it is still more curious, and certainly more useful, to find out the means of preventing the deleterious effects of these bodies, or at least of arresting their progress, when they have already commenced. This has been engaged in by the medical department of Mr. Orfila's work.

1. Milk is the true counter-poison of minute of tin, a substance which frequently falls in the way of individuals. The milk is completely coagulated by this salt; the coagulum contains the muriate of oxide of tin, and muriatic acid, and this coagulum is not poisonous. Three experiments confirmed this fact.

2. The muriate of soda is the true counter-poison of the muriate of silver, since it prevented the corrosive effects of this salt. Two experiments demonstrated this.

3. Calcined magnesia, proposed by Pelletier as the most efficacious method of arresting the action of the acids, succeeds, in fact, very well; several experiments have demonstrated it; but this remedy must be administered very speedily.

4. The sulphates of soda and magnesia are the true counter-

poisons of the salts of lead and tin. The reciprocal action of these substances, giving rise to the evacuation or abundance of matter, and with these antidotes must be employed in great quantities and at quick intervals.

M. Orfila discovered that the sulphuret of potass, recommended by Navier to check the effects of the metallic salts, was of no use.

2. The acetic acid is the most efficacious remedy in cases of poisoning by the alkalies. M. Orfila made several experiments to prove this.

3. Iodine, having produced, on dead organic substances, effects very analogous to those exercised by the organic living animal economy, M. Orfila was curious to know what were its effects on the living animal economy. When introduced into the stomach in a small quantity, it acts like a slight stimulant, and produces vomiting. In the dose of a drachm, it constantly kills animals whose œsophagus has been tied, producing ulcerations in the mucous membrane. In the dose of two or three drachms, it acts in the same way on animals whose œsophagus has not been tied, and which are several hours without vomiting. It rarely produces death when it has been administered in the dose of a grain or two, and when the animal rejects it in a short time by vomiting. It never destroys life when applied externally.

It acts upon man as upon dogs. M. Orfila, having once taken two grains of iode, experienced nausea; on another occasion, having taken four grains, he had nausea, with symptoms of choaking, vomiting, and a slight oppression; when he took six grains, he had the same symptoms, besides an acceleration of the pulse, and symptoms of colic.

In an appendix to his work, M. Orfila shows that charcoal is not the counter-poison of corrosive sublimate and arsenious acid (white arsenic), as M. Bertrand had announced; but, because animals which took six grains of one or other of these poisons, mixed with four times as much charcoal as M. Bertrand employed, died in a day or two, when the œsophagus was tied, and the stomach was strongly cauterized. Now, what constitutes the essence of a counter-poison of corrosive substances, is the prevention of corrosion. Vitally, Almost all the animals which took this mixture, and whose œsophagus was not tied, died, after having vomited several times; the stomach was found greatly inflamed.

Two only out of twenty, of the animals which were subjected to these experiments, escaped, and they instantly vomited the poison enveloped in the charcoal.

In order to prove that the charcoal had acted as an envelope only, six grains of the same poison were given to these two animals, enveloped in clay, which they vomited instantly, and were rescued. The water of charcoal is not more efficacious.

In the same appendix, M. Orfila establishes, by experiments, first, that the sulphuret of potash is an energetic corrosive poison; 2d, that in the dose of half a drachm, it produces death in eighteen

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outwards hence, when the morphœus is tied, by determining inflammation or ulceration of the membranes to the stomach, and acting on the nervous systems, and that in the dose of three or four drachms, it kills animals in three or four hours, if they are prevented from vomiting. The author made all his experiments upon dogs.

The researches of which M. Orfila has made up the second part of his work, being of so frequent application, and so immediately useful to the preservation of human life, and to medical jurisprudence; the simple and methodical manner in which the author has treated this interesting subject, together with the pain and disgust attendant upon these kinds of experiments, will, doubtless, determine the Institute to grant him permission to publish his Toxicology with their special approbation, and his zeal will, consequently, be redoubled in the perfection of that department of his experiments which shall include the vegetable and animal poisons.

(Signed) PARET, VAUQUELIN, PERCY.

The Institute approves of the above Report, and adopts its conclusions. G. CUVIER, Secretary.

On the late Plague at Malta, by JOSEPH SKINNER, Esq. late Surgeon to the Prisoners of War at Malta.

In what way this terrible scourge was introduced into the island of Malta, is not to the present purpose; but it is to be trusted that for the future, whenever infection shall be known to prevail on ship-board, and to hover about the vicinity of any of the British settlements, there will be but one sentiment relative to the precautionary measures to be adopted. At the time of this visitation Malta was substantially a British colony, although not declared so. The Maltese, however, were not brought into that state which could prevent the spreading of the contagion at the onset. They are a people who, being strongly attached to their native soil, seldom migrate to make observations elsewhere. The history of the plague, as referring to their own island, was too remote to serve them as a guide; and it was not until many of them had been swept away, that they could be made to believe in the reality of the calamity, which they mistook for an ordinary disease. To the infirm, bigotry in all ranks was combined with the cupidity natural to the lower class of the Maltese. The churches were as diligently attended as if no miasmas could result from the contact of many individuals; the host was paraded with numerous followers; and visits paid to the infected, without scruple and without hesitation, by their relatives and friends. In this way, and by the concealment of pestilential effects, the disease not only spread through the city of Valetta, but was introduced into several of the casals or villages, before the strong hand of power could stay its progress.

When these facts are considered, it will not appear surprising that

that this dreadful scourge, which for several months desolated the island of Malta, and was subsequently introduced into Gozo, was principally confined to the indigenous inhabitants of those islands. Few of the Turks or Greeks resident at Valetta, the capital, were attacked, if we except those of the lower class of Greeks, who, in common with the felons, were engaged in the hazardous employments which the exigencies of the occasion required. Other foreigners were equally exempt; and the British peculiarly so. It was indeed a matter of fearful wonder to the Maltese, who regard all protestants as heretics, and therefore the fittest subjects for Almighty vengeance, that of all others they should have been most favoured under this visitation. With the exception of two females, who had been abandoned by the military, and were sent, with the charge of children, to the spot destined to receive the population of the infected quarters of Valetta,—of the wife of a serjeant of artillery who resided at Floriana, when the disease raged with violence in that suburb;—and of the last fatal case at Gozo, which will be touched on hereafter, the writer does not recollect any British who were victims to the disease, the soldiery of one of the military corps excepted. At the breaking out of the plague at Valetta, many of the British families resident there sought refuge in the country. It is highly to the honour of those who remained to face the danger, and who were restricted to the spot by public employments, that they were most instrumental in checking the propagation of the contagion, displaying, on every occasion in which they volunteered their services to the government, an heroic courage and a zeal beyond all praise.

Fort Manuel, situated opposite to Valetta, on the other side of the Quarantine creek, was, at the beginning, the receptacle of the sick, who were, together with the remaining tenants of infected houses, poured in from the capital in proportion as the disease gained ground, and before most hospitals could be prepared for their reception. Huts were constructed in the square, that the infected might be cleaned. These were, the Mandraggio, a low, obscure and crowded quarter, chiefly inhabited by market people, and another low spot in the vicinity of Fort St. Elmo. Before these measures could be adopted, the population of the buildings of Fort Manuel became overcharged; and here a particular symptom of plague, which does not appear to have been noticed by any writer on the subject, presented itself. Owing to the stimulating quality of the pestilential virus, a furor, or what may be better termed a satyriasis, was induced in both the sexes, which required all the vigilance of the attendants to separate them, and that under the most loathsome circumstances of the disease. It is possible that this fact may lead hereafter to a better knowledge of the specific quality of the contagious matter. Subtle and fermenting in its nature, in attacking the vital energies, it produces that peculiar excitement in the system, which has been hitherto almost exclusively

clusively confined to the pathology of manical cases, and of uterine affections in females.

Several of the Maltese medical practitioners, or, as they style themselves, professors, were selected by the government, and allowed handsome salaries, to administer to the sick who had been removed to Fort Manuel, and to watch over the safety of Valetta, by visiting the houses where a suspicion of infection was entertained; at the same time that the most prudent measures were adopted to prevent the concealment of disease. For this purpose, constant visits were paid in the respective districts into which the city was divided. These districts were separated by barriers, to the end that each of them might be the more closely watched, and all unnecessary intercourse between the inhabitants prevented. The latter were, indeed, with the exception of such as could render themselves useful abroad, confined to their homes, the supplies of provisions being carried round by persons appointed for that purpose. Proclamations were issued, pointing out the precautions they had to observe in receiving these supplies, &c. In short, every salutary and restraining measure which the public safety required, was promptly taken by the Government.

Having adverted to the Maltese practitioners, whose exertions for the relief of their fellow citizens was thus called forth, and liberally recompensed, some account of their practice, of the curative means they employed, may be expected. To come, however, at any minute knowledge of the treatment they pursued, baffled all the ingenuity of inquiry. It is not but that they were sufficiently accomplished, in point of study, for the task they undertook. Several of them may, on the other hand, be cited as highly accomplished in their profession;* but it was not an easy task for them to subdue the constitutional timidity under which they laboured, on the sudden appearance of a contagious distemper with which they were only theoretically acquainted. To follow up any thing like a regular method of cure, required a free and unrestrained communication with the patients under their care, which they could not maintain unless exempted from the panic that was spread around them. History records that on the breaking out of the great plague in London in 1665, among other instances of an heroic contempt of danger—of an ardent zeal in the cause of humanity, which could not be abated by any consideration of personal safety—a Dr. Sayer declared that, braving every risk, he would attend indiscriminately the rich and the poor. He persevered until the last, and escaped the contagion.† Nothing of

* The Maltese public have to regret the loss of Dr. Gravagna, a learned and judicious practitioner, of very amiable manners. He died in the time of the plague, but it is uncertain whether he fell a victim to the disease.

† Among the precautions with which he armed himself, it was his custom to take a copious draught of Madeira wine on leaving his house, and another on commencing his rounds.

this

this sort was to be heard of at Malta: it would in truth appear, that every idea of systematic treatment yielded to the powerful impressions of fear, as well at the onset as when the disease raged with the greatest violence. Even when, towards the close, the symptoms became milder, and the attacks less frequent, the same timid caution—the same dread of approaching the patient, so as to be enabled to direct a particular attention to the symptoms of his case—was to be noticed.*

In aid of the Maltese practitioners, several Turks and Greeks were, at the instance of the Government, sent to Malta from Smyrna. They are said to have been useful, not on account of any particular knowledge they possessed of the management of plague, but because they had been so accustomed to it, and in a manner seasoned, that they braved its attacks in their attendance on the sick.

The attempts at plague inoculation were founded on the commonly received opinion, that those who have had the disease (and it is presumable that this was the case with several, if not with all the above individuals,†) are not again liable to infection. They may be less susceptible than others; but a Frenchman who had been servant in an English family at Valetta, and who, having caught the plague, had been sent to Fort Manuel for cure, had, during his stay there, two subsequent attacks, from the latter of which, although a sharp one, he recovered perfectly.

A Neapolitan physician, who had seen much of the plague in Turkey and Greece, was among the boldest of the practitioners. He did not hesitate to approach the sick, and to treat them with freedom. It was his practice to cauterize the pestilential tumours, and towards the close of the disease, when the inflammatory symptoms had subsided, to make a liberal use of cordials and alexipharmics.

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* At Valetta, in a part of the fortifications, huts were erected for such of the prisoners of war as had been released on the condition of their undertaking the tasks of sweeping the streets, white-washing infected houses, &c. in the event of their being seized by plague. A suspicious case having occurred among them, the Maltese practitioner on duty kept the respectful distance of sixteen paces from his patient. It is true that he was provided with glasses; but how far, with this interval between the parties, they helped him in his timid inquiries, is uncertain.

† Smyrna is said to be never entirely free from plague, more especially in the district occupied by the Turks. In that city, at Alexandria, and indeed wherever the disease is familiar, those whose temperament has enabled them to resist an attack, or who have escaped the contagion under circumstances of the greatest exposure, are selected to administer to the sick. There may be habits in which there is not the slightest susceptibility to receive the infection, as in the example of the natural small-pox.

[illegible] to pay a well-merited compliment to the British medical staff, whose exertions were immediately required by the breaking out of the plague in the 31st garrison battalion, and like wise in De Rolle's regiment, consisting entirely of foreigners. The military part of the hospital was under the management and direction of Ralph Green, Esq. Inspector-general of Hospitals. The [illegible] every advantage which could be afforded them by skill and science, aided by that courageous zeal which spurns every idea of personal safety, when an important duty is to be performed. Accordingly, the proportion of recoveries was much greater than that which the Maltese practice has to record. Not [illegible] the attendants took the infection. They were made to bathe and employed frequently as pioneers did also the military orderlies. In addition to this latter precaution, recourse was had to cold ablutions of vinegar and water.

With the symptoms by which the plague is characterized it presents, when in its attack, similarity to those of the synochal fever, or bilious remitting fever commonly called in the Mediterranean the fever of the country. At the commencement it therefore requires the same antiphlogistic treatment, by bleeding and other means, to diminish the powerful determination to the brain, the oppression of which is among the earliest of the symptoms, accompanied by stupor and delirium. On the subsidence of the inflammatory symptoms, the case having taken a favourable turn, the method of cure is in either fever the same, independently of what belongs to the tumours and other characteristic signs of plague. The symptoms, as they have latterly presented themselves, and the treatment which appears to have been most successful, are described by Ulstadius, who wrote on plague so far back as the commencement of the sixteenth century, and by Sennertus, who collected all the authorities up to the middle of the seventeenth.

Several persons at Malta, and among others a British merchant, asserted that they could distinguish a glare, a peculiar wildness of the eyes, before the individual himself, in whom it was perceived,

* The following melancholy fact is a proof, among others, that an ardent desire to procure information with a view to benefit mankind, will sometimes carry an individual beyond the prescribed limit of his duty. Dr. Mac Adam, physician to the forces, was sent by the governor of Malta to Gozo, to direct the means to be employed in the case of the plague breaking out among the military stationed there. He was particularly enjoined not to incur any personal risk, his being a task of mere superintendance. His anxiety, however, to acquire a precise knowledge of the nature of the disease, led him to pay frequent visits to the pest-hospital, where at length he caught the infection, and was the last victim of the scourge which so long ravaged the islands of Malta and Gozo.

† His Treatise appeared in 1626.

was sensible of the attack of plague, and while he was still following his usual occupations. The writer had to witness the effect of a sudden attack in a Maltese, who had proceeded, apparently in good health, as far as the Conservatory Square at Valetta, when his progress was in a moment arrested. He had just sufficient strength to maintain himself in an erect posture; but was obliged to be supported on either side when taken to the bier on which he was conveyed to the pest-hospital. His eyes were downcast, his countenance pallid, and there was an expression of anxious terror which sufficiently explained the quality of the attack.

Notwithstanding all that had been advanced in their favour by various writers, and more especially by Messrs. Baldwin and Thornton; and in spite of the example of the oil-carriers in Africa, who are represented as enjoying an immunity from plague; the frictions of warm oil had not, on the breaking out of that disease at Malta, all the credit which an after experience showed them to deserve. This will not appear surprising, when it is considered that several late medical writers have spoken with considerable hesitation on the subject. After the numerous trials made at Valetta, and elsewhere in Malta, these frictions, if properly applied,* may be pronounced to be an almost certain prophylactic. It is a justice due to a very intelligent young man, Mr. Thornton, assistant deputy paymaster to the forces, and nephew to our minister of that name, to state that, with his uncle's book in his hand, he was the first strenuously to recommend their employment, at the breaking out of the contagion. Among those who wrought zealously in this cause, Mr. Matthew Fletcher, a British merchant, was foremost and indefatigable. Whenever a case of plague came to his knowledge, he hastened to the spot, beseeching the inmates of the dwelling, by whom a free communication with the infected individual had been kept up, to have instant recourse to the frictions, and supplying the means where these were deficient. The happy result was, that, on the plague ceasing, he was possessed of a long list of the cases he had recorded, in not one of which a failure was to be found; at the same time that, where this preservative was not employed, it was usual to see the disease spread from one individual to another who herded together, until the whole were swept away. A few instances of the beneficial effects of the oil frictions, as tried at Valetta, will suffice, so as to banish all scepticism on the subject. In a family consisting of seven individuals and a female servant, the father and eldest son, who had both been assiduous in attending the host, and had besides visited a relation

* Every part of the body having been well cleansed with water, or with vinegar and water, the frictions are applied with a sponge, as warm as they can well be borne, the eyes being closed to protect them from irritation. This is repeated at least twice a-week, wearing the same linen between the frictions.

labouring

labouring under plague, were attacked, and died pretty nearly at the same time. On the first alarm the frictions were employed by the rest of the family, and all escaped, although they had communicated freely with the unfortunate victims of the disease. A French cutler, who had the same number of children, had married his eldest daughter to a person who took the plague of the next door neighbour, as did likewise the second daughter of the family. The two sickened about the same time, and these also were fatal cases; but the remainder of the family, who had had recourse to the oil frictions as soon as the nature of the attacks was ascertained, escaped, without excepting the wife of the young man, who was then in the middle of her pregnancy, and who attended her husband during the few hours he survived the attack. A Maltese with a large family took a sick brother into his house, not suspecting that he laboured under the plague, and paid him unhesitatingly every affectionate attention. The instant this came to the knowledge of Mr. Iliff, apothecary to the forces, to whom the Maltese in question had formerly been a servant, the oil frictions were sent in and employed. The infected individual died, but the whole of the family escaped. It is needless to cite any other cases, although many similar ones might be adduced. The confidence of the Government of Malta in the efficacy of these frictions was at length so great, that a shed was erected at each of the barriers of Valetta, for the purpose of administering them to the guards stationed there, and to the market people and others whose avocations kept them abroad.

† Alexis, the Piedmontese, who travelled every where in search of secrets, has published a variety of receipts for plague, into the composition of several of which storax enters. The writer was solicitous to make a trial of this substance, which unluckily was not to be found at Malta, either in the concrete state in which it is called *storax calamita*, or in its liquid state.* It was certainly, as the event proved, deserving such an essay, and was susceptible of various modifications in its use. What has been sanctioned by a long experience deserves credit, unless there be incontrovertible evidence to prove that the notion originally entertained of its efficacy was founded in error. A Turk, whose knowledge of the subject was by no means limited, distributed among his friends at Valetta lumps of a black substance resembling shoemaker's wax, which he had brought with him from Constantinople, and in the composition of which storax was the principal ingredient. These were either to be carried on a stick, and smelt to from time to time, or kept in the hand and constantly moulded, to the end, no doubt, that a portion of the substance might adhere to the fingers.

* It is with this latter substance that the fire-eaters, as they term themselves, anoint the tongue and fauces to protect them from the effect of caloric.

They were sought after with avidity. Now, it is to be observed that both the Seraglio cakes, and a particular description of beads of a great price in Turkey, are of a similar composition. It is, therefore, to be presumed, that those who brought them into use had something more in view than to supply an ornament in the case of the former; and in that of the latter, an object of pastime, in which light the generality of the Turks, who are in the constant habit of twirling them about with the fingers, regard beads.

Common tar, a bituminous substance which may be considered as in some degree analogous to storax, although it does not possess its peculiar fragrance, was employed by a Greek whose very humdrum task it was to bury the dead. With this substance he kept his hands and arms anointed. He was pointed out to the writer by Mr. Thomas, garrison surgeon, and acting superintendant of health, as having officiated with impunity in this way during the whole of the time that the plague raged; while the greater part of those who were similarly employed had been swept off by the contagion. In this instance it would appear, that the pores of the parts exposed to contact with the dead bodies were sheathed by the tar, so as to prevent the absorption of the plague matter; but in an old work entitled "The English Housewife," described by Beloe in his Anecdotes of Literature and Scarce Books, another application is made of that substance as a preservative against plague. It is recommended "to smell to a *nosegay* made of the tarselled end of a ship-rope," that is, of a tarred rope. Here something is implied of a specific quality of the tar, as a plague preventative; and this application of it agrees with that of the storax as employed by the Turks.—*Phil. Mag.*

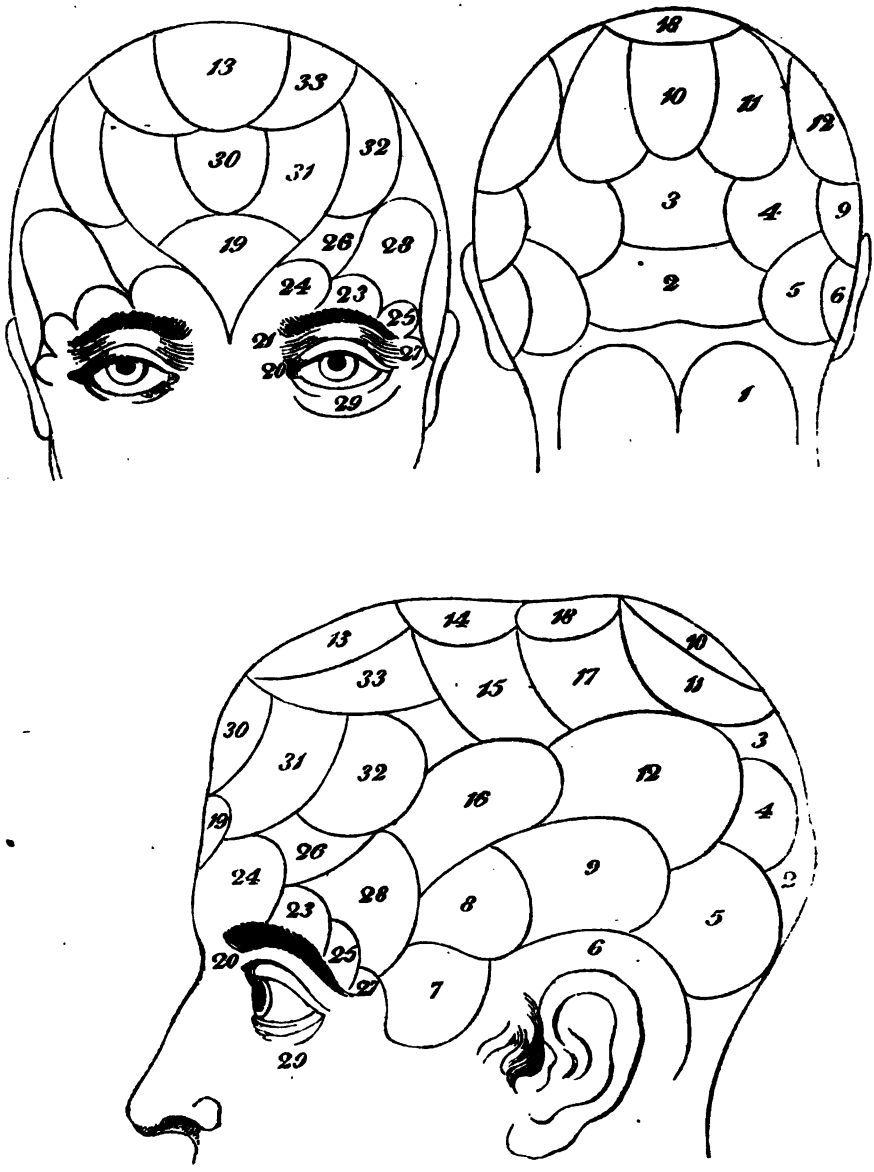
Mr. Hume's *improved Method of making Antimonium Tartar.*

Two parts of black *sulphuret of antimony* in fine powder, and one part of *nitrate of potash*, are to be mixed, and added to two parts of *sulphuric acid*, previously mixed with eight parts of *water*, and suffered to cool. By a due application of heat a proper oxide of antimony will be formed, which, when thoroughly washed, is to be boiled, while yet moist, with two parts of *supertartrate of potash* and a proper quantity of water. The solution is then to be filtrated, evaporated, and treated after the usual manner for crystallization.

Although I succeeded by other methods, peculiarly my own, to prepare this very important medicine, yet, upon the whole, I am disposed to prefer the formula which I now lay before you, more particularly as it is sanctioned with the decided approbation of those whom I wished to serve and consult.

I have here adopted the nomenclature of the College, which, after all, is as correct and convenient as any other that has been proposed for this article. I profess, indeed, to be an advocate for many of the arbitrary names, especially for such bodies as are

beyond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beyond a binary composition; and, where the ingredients enter, as in emetic tartar, alum, Rochelle salt, &c. in *definite* proportions, the rule is perfectly admissible; I should propose, therefore, to retain both these preparations of tartar, at least under their present titles, viz. *antimonium tartarisatum* and *soda tartarisata*.—*Phil. Mag.*

CRITICAL ANALYSIS

OF RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

The Physiognomical System of Drs. Gall and Spurzheim; founded on an Anatomical and Physiological Examination of the Nervous System in general, and of the Brain in particular; and indicating the Dispositions and Manifestations of the Mind. By J. G. SPURZHEIM, M.D.—Large 8vo. pp. 550, with plates. Baldwin and Co.

FEW theories have had greater difficulties to contend against than Dr. Gall's. Its entire novelty has disgusted many of the *emeriti*, who did not wish to begin learning at so late a period of life; whilst the boldness of some of the conclusions has staggered many who seemed open to conviction. As the subject still remains in a sort of litigation, we shall only offer the general outlines of the whole, remarking some particulars on which the advocates of the new system seem most strongly to insist.

A preface explains to us that the anatomical part must only be considered as an epitome of a work not yet completed. It will be unnecessary for us to dwell upon this, as very little more is contained in the present volume than what has already been given in the Numbers of our Journal, to which we lately referred our readers. An apology is made for the introduction of new words. We are ready to admit that a new science, and such is the present, may require new words, and also that it is better to reduce terms to as great an uniformity as possible. In this manner Linnæus, the father of modern physics, availed himself of every term in common use, and never scrupled to coin new ones when he found it necessary.

"The English language (says the preface) presents very few single words which express my conceptions of the peculiar faculties

ties of the mind. Hence I was obliged either to speak by circumlocution, or to make new names. Now I think with Locke, that in this respect, we have the same right as our predecessors, and I therefore propose new single names, which I have formed, as much as possible, conformably to the spirit of the language. Having established different propensities as peculiar faculties of the mind, in order to designate propensity, I have taken the termination IVE as indicating the quality of producing, and NESS as indicating the abstract state; I have, therefore, joined IVENESS to different roots, among which I have given the preference to English words generally admitted. When I could not find any such, I chose Latin participles, which, in English, are so common even in expressions which denote a meaning similar to that which I look for, as destructiveness, productiveness, &c.

"I have further to make a few particular observations. In the nomenclature of the PROPENSITIES, I dislike the name physical love, because this propensity is neither more nor less physical than attachment, or any other inclination common to man and animals; and I could not admit some other expressions in order to denote this propensity, because I want names which indicate the faculty, and not at all any determinate action, whether in its use or its abuse: I have, therefore, adopted amativeness, like destructiveness.—It was difficult to make a name for the second organ, because there is no single word which indicates the love of offspring. Hence I took two Greek roots. I am aware that the name is long, but I could not say philogenitiveness, because the name ought to indicate love of producing offspring. As, however, progeny means offspring, and philoprogeny love of offspring, and philos progenitiveness the faculty of producing love of offspring, I have adopted that term.—Inhabitiveness is composed of the English word inhabit, and the termination iveness.—It is true that adhesiveness is generally used merely in a physical sense, but was not this originally the case with many other words which bear now a mental signification? Attachment indicates only the effect of this faculty, and I require a name to express the faculty of producing such effect. It was naturally my desire to give the same termination to all the names which denote any propensity; and it seems to me that the sound attachiveness would be infinitely more disagreeable than adhesiveness, the signification of which only remains to be determined.—Combativeness is the propensity to combat.—Destructiveness is admitted in the language.—Constructiveness is, in our doctrine, the producing of construction.—I know that covetiveness is a pléonasm, but this fault is observed in many other words. Covet itself indicates propensity or wishing for; and I have added *iveness* solely for the sake of uniformity: otherwise I should have said covetingness.—Secretiveness is the propensity to secrete or conceal.

"The termination ous indicates a SENTIMENT, as anxious, cautious, pious, conscientious, &c. and I should have been very glad

of finding similar adjectives for every primitive sentiment of the mind. When that has been the case, I have added NESS in order to express the abstract state, as cautiousness, righteousness, or conscientiousness.

"The names of the INTELLECTUAL FACULTIES are easily understood, and do not require any particular explanation.

"If, under any head of this nomenclature, there be any better name, or one which indicates more exactly any determinate faculty, but no determinate action or effect of the faculty, I shall be anxious to make use of it; for I am always disposed to acknowledge truth and every real improvement.

"As to style, my work, of course, presented, in the first instance, many Germanicisms and Gallicisms; and it probably still presents some of them. I am, however, indebted to my friend Alexander Walker, Esq. late Lecturer at Edinburgh, for bestowing upon its revisal such time as he could spare from other avocations."

On the modesty of the last sentence, we shall just stop to regret that, in correcting a foreign style, the author did not apply to an Englishman. It is not our business, who are not philologists, to ascertain which is the best language; but it is certain that the Scotch and the English are not the same. The Scotch grammar is, in all doubtful matters, influenced by the Latin; and there are some peculiarities in which it is stiffer, if we may be allowed the expression, than its guide. "*If* under any head there *be* any better name"—(see above). Now, there is no propriety in the use of this *be*, which is grating to an English ear, and the subjunctive mood would not have been necessary even in Latin.

On the addition of IVE to English words, and, where the author could not meet with them, his choice of Latin rather than Greek participles, it is pleasing to remark how exactly he has pursued Horne Tooke's etymologies, who called the adjectives ending in IVE "the potential active participles." As the Επεα Πτεροεντα are not in the hands of every medical reader, we shall transcribe the passage, to show how nearly Dr. Spurzheim has fallen into the opinion of our English etymologist, and his awkwardness wherever he has deviated from him.

"What is the termination of your *potential active adjective*?

"We have two terminations in English for this purpose, which is one more than enough; and yet our language has not hitherto availed itself of this useful abbreviation so extensively as it ought to have done. It is by no means familiar or in common use, as the potential passive adjective is; but is chiefly, though not intirely, confined to technical expressions.

"At the dawn of learning in this country, those who became acquainted with the Latin and French authors, perceived (and especially

pecially when they came to translate them, so to expect any thing after them) a convenient short method of expression in those languages, with which their own could not furnish them. Finding, therefore, this peculiarity, and not knowing whence it arose, as they proceeded, to be more familiar with those languages, they borrowed the whole Latin or French words in which the *abbreviation* they wanted was contained, instead of using their own periphrastic idiom, as formerly, or forming (as they should have done) a correspondent abbreviation in words of their own language. And thus, by incorporating these words, they obtained *partially* (for it extended no further than the very words adopted) that sort of abbreviation to our language which it had not before.

"What kind of composition which alters the terminations of words, being nothing more than the addition of a word, and the addition which the Romans and Greeks made for this purpose being a word of their own language, whose force was consequently known to them, they could, upon occasion, add it to any verb they pleased, and its signification would be evident to all. For though *sayus* and *vis*, by frequent use and repetition, were corrupted, and became in composition *ive* and *ivus* in this *abbreviation*; yet the analogy which this termination would bear to the other words of the same sort, would justify the application of the same termination to any word where they might chuse to employ it. But that is not the case with us, for, as we have not obtained this abbreviation by 'that kind of composition which alters the terminations of words,' (i. e. by adding to one known word of our own, another known word of our own, expressive of the added circumstance) but only by adopting some of the *abbreviated* words themselves from other languages, we cannot so easily supply our defects and extend the advantage, unless we go on borrowing such abbreviated words, ready made to our hands, from the same sources.

"And this will appear plainly to any one who will please to examine our language, for we have not one single word of Anglo-Saxon origin, whose *potential mood active* is *adjectived*. Some attempts, indeed, have been made towards it, but without success; for Wilkins's '*unwalkative*,' (for—one *who cannot walk*,) and other words of the same coinage, have never passed current amongst us. And it is well for the language that they have not, and that the greater part of these new-coined words have been rejected; because the persons who coined them being commonly affected, and always ignorant of the *force* of the *termination* they employed, would very greatly have injured and confounded the language by its improper application of the termination.

"All the *abbreviations* which we enjoy of this kind (i. e. the *potential active adjective*) are either borrowed from the Latin, and then they terminate in *ive*; as *purgative*, *emetic*, *aperative*, &c. or they are borrowed from the Greek, and then they terminate in *os*, as *cathartic*, *emetic*, *energetic*, &c."

We have made this extract short in comparison of its importance, and of the pointed manner in which the subject is illustrated, in order that our readers in general, and Dr. S. in particular, should a new edition be called for, may see the advantages derivable from an etymological knowledge of the terms employed. In the present instance, the professor has very high authority for *availing himself of this useful abbreviation.* But, when he says he has given a preference to our English words in general, or to Latin participles, he will now observe that, happily in the choice of English words, he has usually fallen on Latin derivatives; on all which occasions his compositions read tolerably fair, and even his French *combativeness* may pass muster. Fortunately for him, though, his *philoprogenitiveness* is of *Greek root*, yet the word, united with IVE, is completely Latinized *(progenies)*. The term seems perfectly accordant with the force of the adjunct; this we shall explain, as it may assist our readers in their future progress.

By the etymology above admitted, and by the whole tenour of the work, it is evident that the doctrine consists in a power inherent in certain parts, which may impel the subject to perform certain acts. Yet the performance of these acts requires certain instruments. The hand is necessary for every kind of manipulation, but a good artist might, in a certain degree, direct another, and that other, by a facility of muscles, might perform the work better than his employer. Thus, in music, the ear is the instrument, but the faculty is that part of the mind by which certain sounds are found to harmonize best, or by which the truest melody is discovered. Hence it is found that, though the science of music cannot be comprehended by those who have never heard sounds, yet that the quickest ear is by no means the truest in musical sounds; that, though a man who has never seen, can never comprehend, the nature of colours, yet that the strongest sight will not always discriminate colours, nor feel that enjoyment from the mixture of them which others find. This is well illustrated in the formation of some animals.

"Many animals have the instruments to which certain faculties are attributed, but they do not produce the corresponding functions. Would it not be more natural to suppose that apes and monkies possess the building power on account of their hands, than to think that the beaver builds on account of its tail? Monkies have hands; they can put wood on a fire, but have they understanding enough to keep up the fire? According to this opinion, insects, sea-fish, lobsters, and especially cuttle-fish, ought to have exact ideas of extension, size, and mathematics, on account of their numerous and perfect organs of touch.

"The external instruments are often similar, and the functions performed by them quite different. There is a great variety of cobwebs, which different species of spiders make in order to catch flies. What diversity of structure in the nests of birds whose bills are similar! Animals of the same genus vary much in their food and their manner of living. The large titmouse builds its nest in hollow trees; the long-tailed titmouse in clefts of branches; the bearded titmouse among reeds; the titmouse of Poland suspends its delicate and curious nest on a slender branch; whilst the cuckoo, though it is endowed with a bill and feet fit to build, does not build at all. The hare and rabbit have similar feet, yet the hare lies in the midst of the fields, while the rabbit makes burrows."

The faculty, therefore, is that *vis* or force which makes a man feel a certain impression; and this impression will often exist without the power of completing the act. Thus, a person who has lost his sight, will call to his recollection an assemblage of colours which is most agreeable to him; and an animal not mutilated till after the organ of AMATIVENESS has been completely developed, will feel the stimulus of venery without the means of indulging it.

We have dwelt so long on this part of the subject, because to us it appears the most important difficulty attending former physical or metaphysical reasoning; and because, if the new doctrine is well founded, it solves this difficulty on principles perfectly consistent with sound physiology. We shall now offer our brief abstract.

In the introduction, we meet with many ingenious remarks on the study of psychology. The first part, on the Anatomy of the Nervous System, contains an epitome of the author's mode of dissecting the brain and nerves, not differing from what we have before noticed, but all directed to prove the great outlines of his theory; namely, the necessity of admitting as many organs as there are nervous masses; the proportion and relation between the grey and white substance in the nervous system; the different structure of the nervous parts of the abdomen and thorax; of the spine; of the five senses; of the cerebellum and the brain; the general principles of the commissures or unions of those nervous parts which are double. The communication, also, of the different nervous parts, is shown, especially of those which exert the greatest influence on each other. Hence, the conclusion is, that all the nervous parts are formed and perfected in the same manner, and not produced by elongation from the brain or spinal marrow. The physiology of the nervous system contains a very ingenious attempt to reduce subjects, usually considered metaphysical, to some order, and even to something like ratiocination.

nation. The author takes a view of the doctrine of innate notions, of education, of its effect, and of the passions. From various considerations, he shows that certain organs exist in different classes of animals, and in different animals of the same class; that some of these are larger and more perfect in some individuals than in others; that they are developed at different ages, and that their development may be facilitated, and their growth increased, by the manner in which they are brought into use, that is, by education and early habits.

In this part of the book, we have a very long, and to us it appears unnecessary, dissertation on fatalism and on materialism. Probably the meridian of Germany, particularly the catholical part, obliged the author to go so far out of his way as to quote scripture, and the fathers, in order to show that there is in some men a greater frowardness than in others; especially when he goes so far as to point out a conformation of the brain corresponding with these propensities. To us, nothing can be more philosophical, and, we will add, nothing more consistent with sound morality and true religion.

That there is a difference in the characters of children educated at the same school, and even under the same parents, can be no more questioned than that there is a difference in their features; nor can we dispute that there are such contrarieties in most characters, as oblige us to give a different description of each. If this variety depends on conformation, it will be said, where is the merit of a virtuous disposition, or how shall we condemn a vicious character? The answer is evident, that the virtuous character should be taught a due sense of gratitude to the Fountain of all Good for the happiness he enjoys; and the vicious commiserated, whilst he is warned against indulging passions which his own understanding will teach him must lead to misery and destruction. Thus the well-disposed may be taught modesty, and the wayward checked in their career. Should the propensities of the bad lead to acts destructive of the good order of society, and should they prove incorrigible, we have a written law to authorize us in *cutting them off from the congregation*. The mummery against penal laws is like most other parts of modern cant—nothing more than showing the abuse of necessary institutions. There are men to whom it is a charity to take away their lives, and who, till that service is performed, are the dread, and, by consequence, too often the hatred, of every lover of peace. The controversy concerning materialism is left just as it was and must ever be. The metaphysician may talk of what he cannot define,

but the true philosopher will confine himself to what he can demonstrate. That the soul is influenced by the body, cannot be questioned; and, unless we derive immateriality from revelation, we have no authority to use a term for what cannot be demonstrated. If we derive it from religion, it is no longer a subject of argument, but will be admitted by all who are satisfied with the evidence on which the truth of revelation rests. But surely these are not times to commit a Galileo to prison because he asserts, in contradiction to a language accommodated to our senses, that the world moves round the sun.

The succeeding chapter is devoted entirely to prove that all the moral sentiments and intellectual faculties depend, so far as the body is concerned, entirely on the brain, without any reference to the nerves proceeding from the spinal marrow, or to any parts of the abdominal or thoracic viscera. Many well-established facts and well-founded arguments are produced to show that lesions of the brain are constantly attended with alteration in the moral or intellectual character of the subject. Of those instances in which, by suppuration in man, and by mutilation in other animals, a considerable part of the brain is lost, it is remarked, that the senses have been destroyed corresponding with the parts destroyed or lost; but that, as none of the extremities of nerves were injured, organic actions would continue sufficient to preserve life for a certain time; and, if the parts were healed, life might be preserved with certain changes of character or privation of senses.

This chapter closes with some ingenious remarks on hydrocephalus, on ossifications of the brain, on the absolute and proportional size of the brain, on the facial angle, on the proportionate size of different parts of the brain, and of the mode of judging concerning such proportions. In most of these instances, Dr. Spurzheim shows the errors of former writers, and the insufficiency of the foundation on which their theories are built. The most important part of this chapter, in a practical point of view, is the section on hydrocephalus. In this the author asserts, that all the histories of chronic *hydrocephalus externus* are erroneous. In *hydrocephalus acutus*, the effusion may take place on every part where the inflammation exists; but that in the chronic it is always in the ventricles.

The plurality of the cerebral organs next engages our attention. It is first shown that the opinion of different parts of the brain destined to particular faculties, is by no means new; that philosophers and divines, even apostles, have shown the necessity of admitting either two souls or two distinct

distinct properties in the human body; that some physiologists have even admitted the necessity of appropriating different portions of the brain to different faculties, as they saw different parts appropriated to different senses, though all acknowledged their incapacity to distinguish them. Several objections are then answered, some of which, we conceive, might have remain unnoticed; and a general conclusion is drawn, that it is necessary to make subdivisions of beings and functions, and that they have always been made, though the causes have not been discovered; that the proofs of every faculty, having its correspondent portion of the brain, is demonstrated by the various propensities of animals according with their cerebral formation; by the modification of the two sexes, corresponding with the difference of their sentiments and pursuits; and by the various effects of intense application, of dreaming, somnambulism, mental alienation, and, lastly, by the answers which the very objections to the theory have produced.

Having thus learned that the faculties are innate, that the manifestations of the mind depend on the brain, and of every particular faculty on some particular organ, we are next introduced to the author's method of *determining the functions of the cerebral parts*, or means of pointing out the organs of the manifestations of the mind. The first of these is *anatomy*. Here it is remarked, that nothing but actual experience can direct us; and that this is not different in the brain from the other parts of the body, as there is nothing in the sensible form of the stomach, kidnies, or liver, which would enable us to discover their properties. In the remarks on the comparative anatomy of the brain, the author makes free with his contemporaries, and most of all with Cuvier. This we are pleased to see, not only because that eminent physiologist is still living, but because his fame in comparative anatomy stands so high, that there cannot be a question of his readiness, as well as capacity, to answer, and thus that the truth must ultimately be established. A section follows, on attempts which have been made to try the effects of dissecting out parts of the brain, which, according to this new system, are the organs of certain faculties. If we may judge by the passage, they have none of them confirmed the theory. This is accounted for by remarking, that the experiment, in order to be satisfactory, should not be confined to an horizontal section, but that the organ should be cut out perpendicularly to the bottom, by which process the nerves must be injured, and the animal killed. Even if the operation should be more successful, the injury done to the brain must interfere with the regular action of

many

many other parts of the brain, and, consequently, with the functions of many other organs. The following is given as the manner in which Drs. Gall and Spurzheim have proceeded in forming their conclusions.

"As the structure of any part does not indicate its function, and as the manifestations of the mind, nevertheless, depend on the organization, it must be examined on what other material conditions of any part its function depends. In every function, we may distinguish the energy or quantity, and the modification or quality. It is very difficult to examine the modifications; it is more easy to consider the different energy of the functions. It is then to be examined on what conditions the energy of the faculties depends. There is a general law, that the energy of the functions of any part depends on its size, and on its organic constitution; that is, on its extensity and intensity. It is also certain that, in order to judge the degree of activity of the faculties, it is necessary to consider, besides the extensity and intensity of the organ, the activity of every faculty, and the mutual influence of the faculties upon each other. Now, among these conditions, the most easy to be observed is the size of the organs. Consequently, as the energy of the function depends on the size of the organs, and as the size of the organs is the most easily distinguished, it results that these means are the most proper for the discovery of the organs.

"There is, indeed, a general law throughout all nature, that the properties of bodies act with an energy proportionate to their size. A large loadstone attracts a greater mass of iron than a small loadstone. The fermentation of the same fluid is more energetic, if its quantity be more considerable. A great muscle of the same kind is stronger than a small one. If the nerves of the five external senses are larger on one side of the body, the functions are also stronger on the same side. Why should it not be the same in respect to the brain? Those, however, who object that we neglect the internal organization, are entirely wrong.

"In order to judge exactly of our inquiries, it must be considered that we do not endeavour to determine the degree of activity of any cerebral part, but only the nature of its functions, and to this end its size is sufficient. Gall, though he mentioned this difference in his lectures, was not careful enough to insist upon it. The internal constitution, though very important, is not easily distinguished. On account of its influence, however, we never compare the individuals of different kinds, not even the individuals of the same species, but, in order to conceive the first idea of any organ, we confine our observations to each individual in particular. I admit even the possibility that, in the same individual, the internal constitution of the different parts of the brain varies in the same way as the optic nerve may be more irritable than the auditory or olfactory nerve. It may, however, be observed, that a great difference in the size of the cerebral parts produces a difference in the manifestations of the mind. Indeed,

the divers parts of the brain are differently developed: one is larger, another smaller; and, according to a general law, we are convinced that the functions of the parts, which are much developed, manifest themselves with more energy, while the small organs are less active. It results that, in persons endowed with partial genius, the organs are the most easily discovered. In fact, each organ has been discovered in persons who manifested one kind of function in the highest degree."

The author now feels it necessary to show how such properties of the brain are to be distinguished during life. This he explains by remarking, that the form of the skull is determined by its contents which he proves by the marks from the convolution of the brain, by the loss of a part of the skull from the pressure of a fungus. This is, indeed, a question which will be readily conceded. But there is much greater difficulty in ascertaining the size of the brain, and still more in ascertaining the size of any particular organ. In answer to the latter, it is remarked, that most of the organs extend to, and consequently are manifested on, the surface, by the prominence each produces in the skull. It is, however, admitted, that many difficulties, some of which are insurmountable, attend this; and that, consequently, the science, in its present state, extends no farther than to designate such organs as are particularly prominent.

The seventh chapter contains the method pursued by these gentlemen of *pointing out the functions of the brain.* Here we are told not to expect any organ to point out those properties which are applicable to all the rest. Thus, we are not to expect an organ to demonstrate understanding, nor any of those common faculties connected with it, as perception, recollection, judgment, and imagination. These are called common faculties, being applicable to the others. For instance, in memory or recollection, it is a known fact that one person remembers names, another places, another events; in imagination or invention, that in one person it is confined to architecture, in another to poetry, in another to machinery, and in another to music. The same may be said of affections and passions used in a general sense. Hence it is observed, that the *general* configuration of the head is a very uncertain means of judging of the character; and that Gall himself, in the early part of his inquiries, fell into an error, which, for a long time, rendered him unable to satisfy himself, till he discovered, by slow degrees, the *separate* manifestation of some of the faculties.

The method pursued by these gentlemen was first to observe any peculiarity of form in an individual who was celebrated for any particular quality or faculty. If similar prominences

minences appeared in several whose faculties are similar, this led to a suggestion that an organ was discovered. The inferior animals were carefully examined, and whatever instinctive or innate properties they possess, induced a comparison of the formation of certain parts of the brain with men who were eminent for similar endowments. Even the signs made during certain mental sensations were attended to, an advantage more easily acquired on the continent, where every conversation is so much mixed with pantomime. The skulls also of different nations are said to have assisted the inquiry. The Chinese exhibit most strongly the faculty of colours, and the Kalmucs that of coveting, which leads to stealing.

After these remarks, and introductory to the manifestation of particular faculties, we have a chapter *on the particular organs*. In this it is remarked, that there are certain properties common to all the senses; that the organs are double. Here we are told that the habit of using the right side more than the left is original, and not acquired; that the right eye, hand, and leg, are the largest in most people, and also the right breast, and the right hemisphere of the brain. Without disputing the general result of these observations, we cannot help observing, that in most females the left breast is largest, and the left cheek the fullest. This must have come within the observation of every experienced surgeon who has been often consulted for complaints in those parts, and is probably imputable to the habit with most people of sleeping on their right side, the frequent pressure on which may induce absorption of the contents of the cellular substance. Probably Dr. Spurzheim may have drawn his conclusions from the state of childhood, before such an effect can be produced.

Though these organs are double, it is remarked, their consciousness, or the effect of the impressions produced on them, is single. The various modes by which philosophers have endeavoured to account for this, are detailed; and the author, after objecting to each, concludes with remarking, that we are still unacquainted with the true cause. Every sense, it is next remarked, has its own nature, or rather its peculiar faculty;—every sense may be exercised, and is, for the most part, strengthened by exercise. Many other observations follow on the external senses, all tending to show that they are each regulated by nerves, which can receive no other impressions than such as relate to their own peculiar faculties; and that they have parts of the brain to which they convey their particular impression. This, with some

other

other observations, introduces the description of the manifestations of the various organs, as marked on the diagram.

The first of these is the organ of *amativeness*, or love for the other sex (see I.) This organ is discovered in the space between the mastoid process behind the ear, and the prominent tuberance of the occipital spine about the middle of the neck. By its situation, it increases considerably the volume of the neck, which is always, if we may believe our author, particularly tumid at certain periods. To this peculiarity he imputes the greater thickness of neck in entire animals above those who are castrated; and several passages are cited from the ancients, as well poets as philosophers, to show the sympathy of the neck with a strong propensity for the sex.

The organ of *philoprogenitiveness* (II.) we shall transcribe, to show the manner in which some of these discoveries have been made, and the foundation on which they rest.

II. *The organ of philoprogenitiveness, or love of offspring.*

"I shall endeavour to prove by reasoning, according to the method mentioned above, that it is necessary to admit a particular organ of philoprogenitiveness: I shall afterwards state the circumstances which led to its discovery. In some kinds of animals, neither male nor female take care of their progeny; the eggs are resigned to chance, and to some external influence: this is the case with insects, reptiles, and fishes. Even among birds, the cuckoo gives a striking example of it. This bird has a great propensity to physical love, but it neither builds a nest, nor hatches its eggs: it deposits its eggs in the nests of other little birds which live on insects, placing only one egg in any individual nest; and the other birds hatch and nourish the young cuckoo with particular attachment. In some other kinds of animals, the females alone take care of their progeny. Bulls, stallions, dogs, cocks, &c. are indifferent about their young; while the cow, mare, bitch, hen, &c. are extremely attached to them. In other animals, again, the males and females form an attachment for life, and both sexes take care of their progeny; this instinct, however, is more energetic in the females. The fox, which so much resembles the dog, differs from him in this respect. The fox is attached to its female for life, and partakes of the same cares with her; and if the female be killed, he seeks for food for his young ones. Philoprogenitiveness, however, is stronger in the female than in the male; for, if they be pursued, the male leaves the young ones sooner than the female. Many birds are paired, and both males and females take care of the young. These differences are constant: does not each of them, even on the slightest consideration, seem to require peculiar organization?

"In the human race, this propensity is, in general, stronger in women than in men. This difference is not only perceptible between fathers and mothers, but also between the sexes in general.

A male servant seldom takes care of children as well as a woman. Besides, this difference is not only sensible in grown-up people, but even in children. Present to children playthings indiscriminately, boys will choose horses, whips, drums, &c.; girls, on the contrary, will prefer dolls, cradles, ribbons, &c.

"In every species of animals which take care of their progeny, there are some females which do not feel this propensity, while certain males of these kinds excel in this inclination. Even certain women consider children as a heavy burden, others as their greatest treasure and happiness. This is not only the case among wretched persons, but indiscriminately among rich and poor, among persons of good and bad breeding. In general, all the proofs which have been adduced of the plurality of the organs, may be applied to the organ of philoprogenitiveness in particular. Therefore its existence is necessary.

"Dr. Gall observed a distinct protuberance on the posterior part of the skulls of women (Pl. VII. fig. 1. II.*); and in comparing the skulls of his collection, he found a similar elevation on the skulls of children and on those of monkies. Consequently, it was necessary to point out a faculty common to all of them. During five years he was occasionally occupied with this consideration. He thought, for some time, that it might indicate the greater irritability of women and children; but this supposition he did not long entertain, because irritability is a common quality of every organ. He was in the habit of suggesting his difficulty, relative to this protuberance, to his auditors; and a clergyman, who attended him, observed, that monkies have much attachment to their progeny. Gall examined this idea. In fine, he found that this protuberance, which is situated immediately above that of physical love or amativeness, and corresponds with the general protuberance of the occiput, is the organ of philoprogenitiveness. The development of this cerebral part always coincides with the energy of this propensity. Species, sexes, individuals, which are endowed with a great deal of maternal love, have this organ much developed. In women and females, this organ is, in general, larger. Gall possesses the skull of a woman who, being sick, had the confirmed notion of being pregnant with five children. The corresponding organ in her is extremely developed. There are nations which excel in this propensity, and the development of the respective organ is proportionate. Negroes manifest this propensity in an eminent degree, and this organ is much developed in them. These are facts which every one may verify.

"It is objected that love of children is the result of moral sentiments, of self-love, or of the desire of suckling, and not at all of a

* The last number in each reference to the plates corresponds with the figure on the diagram. The recollection of this will be found very useful in perusing the work, because there are several inaccuracies in the references to the plates, which may, for the most part, be corrected by always keeping these numbers on the diagram in view.

particular

particular propensity. These causes, so commonly admitted, cannot produce love of offspring; for in many animals which love their progeny, these causes do not exist. No animal, below man, has any idea of duty or religious sentiment: birds do not give suck, yet they love their young. This is also the case with men and males in general. Many mothers do not give suck, and yet they love their children much. Moreover, in mothers there is no proportion between moral or religious sentiments, and philoprogenitiveness. Consequently we must admit a particular organ for this propensity.

"I have already mentioned that in mankind, and in those species of animals where females take care of the progeny, certain individuals are quite indifferent to their progeny.—(Pl. VII. fig. 2, II.) In mankind this phenomenon must be considered as an indirect cause conducive to infanticide. We have examined the shape of the head in twenty-nine women who were infanticides. Twenty-five of them had the organ of philoprogenitiveness very small. The want of this organ does not excite a mother to destroy her child, but a mother destitute of this propensity is less able to resist those external circumstances which provoke her to commit this crime. Such a mother will not resist as much as she would have done if her mind had been influenced by the powerful energy of philoprogenitiveness.

"The aim of this faculty is obvious—care of the progeny; its activity may be too energetic, and do harm to children in spoiling them; and if it be very small, there must follow indifference about progeny. The protuberance which indicates the development of this organ, placed in the posterior lobes of the brain, is commonly single, although the organ is double, that is, one on each side. It is single when the posterior lobes of the brain are very near to each other, and double when the posterior lobes are somewhat separate. This difference of form is common to all organs situated in the mesial plane of the head.

"By this and the preceding organ, it is very easy to distinguish the skulls of males and females of the same kind, and, consequently, those of men and women. It is peculiarly worthy of notice, that, throughout all animals, a striking similarity is preserved in the skulls of both sexes. The skulls of men and males are generally shorter and larger, those of women and females longer and narrower."

We shall next offer an extract from the account of "*the organ of the propensity to build, or constructiveness.*"

"Gall observed that those who had a particular disposition to mechanical arts, presented a face of somewhat parallel form, that is, a face as large at the temples as at the cheeks; consequently, that a greater disposition to mechanical arts is indicated by the development of the brain at the temples.—(Pl. XIII. fig. 2. VII.) He found this sign in great mechanicians, architects, sculptors, and designers. The skulls of animals which build, and those of others which do not build, present a remarkable difference at the place

where this organ is situated; for instance, the skulls of rabbits and of hares. It is known that rabbits build burrows, while hares, which in general resemble rabbits, lie in the field. In the beaver, marmot, field-mouse, &c. this organ is distinctly expressed.

"A certain skull is preserved at Rome, which is said to be the skull of Raphael. There exists some doubt of its reality. Professor Schell, of Copenhagen, brought a cast of it in plaster to Gall, and asked him his opinion relative to this skull. Gall answered that three organs were very considerable; that the organ of mechanical arts was more developed than he had ever seen it before; and that the organ of imitation, and that of physical love, were very large. Gall possesses the skull of a milliner of Vienna, who had a good taste, and understood perfectly to change the forms of her merchandises. In this skull, the organ in question is prominent.

"Adversaries of our doctrine may ridicule a comparison between Raphael, a milliner, and a field-mouse. They may laugh at a doctrine which, as they conclude, attributes to a similar organ the sublime conceptions of Raphael, the pretty productions of a milliner, and the inartificial habitation of a field-mouse. But does not the sloth creep by means of organs similar to those by means of which the horse can gallop, or the roe run? Does not the ass cry by the organs by means of which a Catalani sings? It is, indeed, true, that this faculty alone does not produce the sublime conceptions of Raphael, but it was essential to the execution of their objects."

The account of the succeeding organ *(covetiveness)* is extremely interesting, from the very curious anecdotes with which it abounds concerning "persons who have a particular propensity to steal." Though none of our readers, we conceive, can be entirely unacquainted with such unfortunate characters, even in that class of society which renders the practice as unnecessary as it is disgraceful and dangerous, yet we shall copy a few sentences to show that one unhappy accomplishment is not peculiar to our fair countrywomen.

"Certain persons have a particular propensity to steal or rob. It is known that Victor Amadeus I. King of Sardinia, took every where objects of little importance. Saurin, Pastor at Geneva, though acquainted with the best principles of reason and religion, was overcome continually by the propensity to steal. Another individual, of good breeding, was given up to this inclination from his infancy: he betook himself to the military service, in hopes of being restrained by the severity of its discipline; but, as he continued to steal, he was in danger of being hanged. Struggling against this propensity, he studied theology, and became a Capucin: his propensity followed him into the convent, but he took only little things, as candlesticks, snuffers, scissars, drinking-cups, and glasses. He did not, however, conceal the stolen objects, but acknowledged that he had taken them home that the proprietors might have the trouble of carrying them to their houses again. A

person

person employed by the government of Austria, and established at Presbourg, had filled two chambers with stolen furniture, but he never dared to make use of it. The wife of Gaubius, the famous physician at Leyden, had, in so high a degree, the propensity to steal, that, when making purchases at shops, she always endeavoured to take something away. Her husband ordered a servant to follow her, and to prevent or to compensate for her theft. The Countess M***, at Wesel, and J***, at Frankfort, manifested the same propensity. Madame de N*** had been educated with great care; her understanding and talents assured to her a distinguished place in society; but neither her breeding nor education secured her against the powerful propensity to steal."

These anecdotes are continued for several pages, and describe men of all ranks and professions who were incapable of resisting the propensity.

We have transcribed the following, to show the manner and degree in which one faculty may be modified by, or is absolutely inconsistent with, certain others.

XIII. *Organ of benevolence in man, or of meekness in animals.*

"For a long time Gall did not think of placing goodness of heart in the brain. A family at Vienna often praised the goodness of one of their servants. This family several times told Gall, that he ought to mould this servant in plaster. At last he actually did so, and observed a considerable protuberance on the superior middle part of his forehead. This organ was afterwards confirmed by numerous observations; for it is very easy to examine and verify this organ in children and in adult persons.—(Pl. VII. fig. 1; Pl. XI. fig. 1. (XIII.)) This organ may also be proved by reference to animals, either in comparing different species, or different individuals of the same species. Several kinds of animals are naturally meek, as the roe, goat, sheep, while others are wild, savage, and mischievous. Some dogs, horses, cows, &c. are meek and familiar, while other individuals of the same kind bite, kick, &c. The mild and good-natured animals have the place of their forehead corresponding to the organ of goodness in man, elevated and prominent (Pl. X. fig. 1 and 3, XIII.), while the ill-natured present a hollow at this place (Pl. X. fig. 2 and 4, XIII.).

"It is sometimes maintained that goodness is the result of the want of courage. But it is in my opinion a law, that the want of any faculty cannot produce any positive sentiment. On the other hand, many persons are very quarrelsome, and at the same time very good-hearted. In the same way, active cruelty cannot be the result of the want of goodness; for cruelty is a positive sentiment. It is true, goodness or compassion cannot exist in cruel beings which are fond of tormenting others, but cruelty belongs to the organ of the propensity to destroy, without being restrained by any other sentiment.

"This faculty, although it exists in animals, is greatly magnified and ennobled in mankind. In the greatest number of animals it

is restrained to a passive goodness, but in man its sphere of activity is very considerable. It produces in man goodness of heart, kindness, peacefulness, mildness, benignity, benevolence, complaisance, clemency, mercifulness, compassion, humanity, hospitality, liberality, equity, cordiality, urbanity, in one word, *Christian charity*."

We shall pass over the enumeration of any other manifestations. Those we have given are sufficient, as specimens; and such of our readers as feel a greater interest in the subject, will peruse the original. At the close of each chapter a sort of recapitulation is given. The following apologetic sentence is all we shall offer for the present.

"A double objection against this kind of considerations is made. Some adversaries object that there are too many organs; others say, that there are not enough. Those who find the organs too multiplied, must know that every organ is admitted by the same proofs, namely, by those which establish the plurality of the organs, and that it is verified by experience. The independence of one organ is neither more nor less certain than that of any other organ; and, if any proofs be admitted in respect to one organ, they must be agreed to in respect to all other organs. Those who think that we do not admit organs enough, must consider that every faculty may be applied to an infinite number of things; for instance, seeing is always seeing, but what an infinite number of objects may be seen! Hearing is always hearing, and so on as to every external sense. It is the same with the internal faculties. Constructing is always constructing, but what an infinite number of objects may be constructed, &c. Moreover, it is to be observed that a great number of actions (not a great number of faculties) result from the combination of different faculties; and therefore it is not surprising to observe so many effects produced by so small a number of them."

"The different modes of action of the special faculties of the mind" are next considered. In this chapter the author shews, that many faculties are considered as different, which are only different degrees of the same faculty; that others are modified by impressions derived from other faculties. Hence the vast variety in the human character, and the apparent contradiction in many; and hence it is that we rarely see the most depraved entirely destitute of some good qualities, nor the best without their failings. This leads to a consideration of "the mutual influence of the faculties of the mind as they concern the morality of our actions." Here the author distinguishes between those faculties which are active, and those which are auxiliary. Of the former are hunger, love, propensity to fight, build, or accumulate. These should be directed by the faculties more connected with mind; and this law of subordination of the faculties, leads immediately to the consideration of moral good and evil.

evil. That physical and moral evil really exists, one should have thought it unnecessary to prove. That they are both consistent with the free agency of man, we know not how to deny; but there will be always a difficulty in explaining the causes of evil, and we do not perceive that Dr. Spurzheim has done any thing towards elucidating so dark a subject. It is enough to say, that he has not involved it in greater obscurity, or, in other words, that, as no one ever doubted a propensity in most of us to indulge sensuality to excess, so no one can question, without ever referring to the new doctrine, that these faculties or propensities are in some particularly powerful, and that too often they are not controlled by the auxiliary or directing faculties.

The remaining chapters are—on *the modifications of the manifestations of the mind.* Under this head are considered association of ideas and mnemonics.—The *mutual influence of the faculties as the cause of different characters and talents.*—The *difficulty of judging the actions of other persons.* Here the invention of arts and sciences is considered, and also the necessity of some indulgence to the failings of others. The concluding paragraph of this division is so well disposed, that, though it contains nothing very new, we shall make no apology for transcribing it.

"From the modifications of our faculties results still a very important practical rule—indulgence. It is impossible that other persons should feel and think in every point in the same manner as we do. In the same way, as it is generally admitted, that the functions of the five external senses cannot be altogether the same, and without any modification—as it is proverbially said, *De gustibus non est disputandum*, the internal faculties are also modified, and no one has a right to desire other persons to feel and think in the same manner as he does. A certain indulgence is necessary in society. I do not maintain that every manner of feeling and thinking, and every action, can be tolerated. There is a common touchstone for every individual. The feelings, thoughts, and actions, must be conformable to the absolute conscience of man; all other modifications ought to be tolerated. This principle may be applied to both sexes, to all conditions and ages; and no friendship can be permanent without indulgence as to many modifications in the manner of feeling and thinking. It is the same in religious and other opinions. St. Paul said to the Romans, 'One believeth that he may eat all things; another, who is weak, eateth herbs: let not him that eateth despise him that eateth not, and let not him that eateth not judge him that eateth. One man esteemeth one day above another, another esteemeth every day alike. Let every man be fully persuaded in his own mind. We then that are strong, ought to bear the infirmities of the weak, and not to please ourselves. The kingdom of God is not meat and drink, but righteousness and peace.'"

A chapter

A chapter on *sympathy and antipathy* might, we conceive, have been omitted. What is admissible in it is not new. That on *pathognomy* contains many new and judicious rules for judging of the characters of others. The physiognomy of Lavater is shown to be unsatisfactory, inasmuch as he measures only the whole head, thus overlooking the individual faculties, which are considered by the author as producing all the variety of characters. For the *general* principles of pathognomy, the author insists principally on the corresponding actions of the whole body, or of all the parts, particularly the features. This is followed by some well-digested remarks on the impression of pain or pleasure produced by the presentation of various objects, and on the compound effect, according as two or more different faculties may be affected at the same time.

The remarks *on man as an object of education, and correction or reform*, are such as might be expected from the whole of the preceding work. The author regrets, with much truth, that we know so little of man; but urges that he should be studied most of all for the above purposes. In education, the prevailing faculties should be well ascertained, and a direction given so as to improve the best by continual exercise, and repress the bad, either by entire disuse, or by constantly restraining its action whenever it is excited. The same should be the aim and constant employment of the legislature.

The last chapter is by far the most important of all, and we scruple not to say, that it may prove a sufficient apology for the tediousness attending the tautology of some others. It is *on the diseased state of the brain, and on the derangements of the manifestations of the mind.* This, of course, leads to the consideration of lunacy, particularly the diagnosis of the immediate or proximate cause, as far as experience in morbid dissections, compared with the symptoms during life, may direct us. It would ill become us to give an opinion on this subject. We pretend not to have sufficiently improved the opportunities of examining the brain of these subjects ourselves, and unfortunately there is too great a deficiency of records to direct us. Why have we no information from men who profess to devote their lives to such cases, and who have ample opportunities of examining the brain, from the facility with which such dissections are concealed, where it is necessary or desireable? If it should be answered, that hitherto dissection has taught us little; let us at least know that little, and let us be informed of the number of cases in which nothing has been discovered. From this time, we trust, the improved mode of dissecting the brain,

brain, which seems generally approved, will be adopted, and that facts will be recorded.

Such is our epitome of this truly novel production: If we have said but little of its merits, it is not from any wish to undervalue it, but because we conceive ourselves hardly capable of forming a true estimate of it. That it contains much valuable matter is certain; and if in other parts it is less so, and even in some instances erroneous, we shall still for ever respect the industry of men who have discovered a new science, and taken pains to make it generally known.

Explanation of the Diagrams on the Plate referring to the various Organs.

"I. Organ of amativeness *(physical love)*.
II. ——— philoprogenitiveness *(love of offspring)*.
III. ——— inhabitiveness.
IV. ——— adhesiveness.
V. ——— combativeness.
VI. ——— destructiveness.
VII. ——— constructiveness.
VIII. ——— covetiveness.
IX. ——— secretiveness.
X. ——— self-love.
XI. ——— approbation.
XII. ——— cautiousness.
XIII. ——— benevolence.
XIV. ——— veneration.
XV. ——— hope.
XVI. ——— ideality.
XVII. ——— conscientiousness.
XVIII. ——— firmness or determinateness.
XIX. ——— individuality.
XX. ——— form.
XXI. ——— size.
XXII. ——— weight.
XXIII. ——— colour.
XXIV. ——— space.
XXV. ——— *order?*
XXVI. ——— *time?*
XXVII. ——— number.
XXVIII. ——— tune.
XXIX. ——— language.
XXX. ——— comparison.
XXXI. ——— causality.
XXXII. ——— wit.
XXXIII. ——— imitation."

Medico-Chirurgical Transactions, Volume the Fifth.

(Concluded from p. 420.)

On the Treatment of Erysipelas by Incision; by A. C. HUTCHINSON, M.D. Surgeon to the Royal Hospital, at Deal.

No one at all conversant with the diseases of seamen can be ignorant of the great ravages attending erysipelas, especially in the lower extremities. Gangrene and deep-seated suppuration, with all its consequences, frequently render incisions absolutely necessary in an advanced stage of the disease, in order to dislodge matter which is insinuating itself into every part of the cellular membrane. Mr. Hutchinson found great advantages from early incisions, in addition to the general treatment, which was of course governed by circumstances. The paper is well written, and the success of the author's plan entitles it to general consideration, particularly in that line of practice in which these cases are most common.

Case of Obstructed Aorta; by ROBERT GRAHAM, M.D. one of the Physicians to the Royal Infirmary at Glasgow.

This is a most interesting and important paper. A boy, after the common symptoms of pneumonia, expectorated matter, and had subsequently considerable palpitations, but without any purple appearance on the skin. By proper remedies, all the symptoms subsided, and the patient left the hospital. In about six weeks, he returned with palpitation, dyspnœa, and a throbbing of the carotid and subclavian arteries. These symptoms increased for about three months, when the patient expired. The pulse, during his last residence in the hospital, fluctuated from 90 to 116, but was always regular, with different degrees of firmness and strength. On examining the body, the principal thing deserving notice was an unusual expansion of the aorta near its origin, so as to form a kind of pouch, but, after giving off its branches to the head and superior extremities, its diameter was preternaturally contracted.

"It was continued of this diminished size, till after its union with the *canalis arteriosus*, where it was completely impervious. The coats were not thickened, or in any way diseased, except that, about half an inch below the stricture, there was a smooth elevation on the inner surface, less raised, but having nearly the diameter of a split pea; otherwise the appearance was exactly such as if a ligature had been tied tightly round the artery. The obstruction was about a line in breadth. The artery then received three trunks about the size of crow quills, and near them three smaller ones, afterwards resuming its natural size along the *vertebræ*. These three

three trunks, are evidently the uppermost of the inferior intercostals. Their coats were remarkably thin, like those of veins. A probe passed from the pulmonary artery along the *canalis arteriosus*, to the obstructed portion of the aorta, but from its thickened appearance it did not seem probable much communication by means of it could have been allowed, and the florid countenance of the boy during life establishes the same conclusion. There having been no suspicion of this singular deviation from the natural structure, till after the contents of the thorax were removed from the body, it was impossible to trace with the accuracy that could be wished, the anastomosing branches by which the circulation had been carried on in the inferior parts of the body; but I think enough has been observed to lead us very near the truth. The *arteria innominata*, the left subclavian, the superior intercostals, and the mammary arteries, were much enlarged. The epigastric was reported of its natural size. These facts, and the aorta acquiring at least very nearly its natural size immediately below the stricture, shew that the blood did not pass to the inferior extremities, in any material quantity, as might perhaps have been expected, by the inosculations of the mammary and epigastric arteries, but chiefly by the communications of the superior intercostals and the mammary arteries, with the three large branches entering the aorta below the stricture: also from the mammaries and thoracics through others of the intercostal and diaphragmatic arteries."

Some judicious remarks follow. The writer conceives, with much propriety, that the preternatural appearance in the aorta was not original, but the effect of disease; that the enlargement and consequent stricture had been gradual; and the violence done to so important a blood vessel, shews how considerable the resources of nature are to protract life under circumstances the most unfavourable even to the circulation itself.

On the Diuretic Properties of the Pyrola Umbellata; by W. Somerville, M.D. Deputy Inspector of Military Hospitals, &c.

It is too common an opinion, that the *Materia Medica* is much too considerable already. This is a dangerous prejudice, when we recollect the vast variety in the human constitution, and the difficulty of suiting remedies to each. This is exemplified in no class of remedies so remarkably as in diuretics. Hitherto, we fear, the valuable addition described by Dr. Somerville has not been naturalized in England; the extract, however, has proved equally efficacious.

Case where a Seton was introduced between the Fractured Extremities of a Femur, which had not united in the usual Manner; with some Observations on the Methods which

have been employed to produce re-union in Fractured Bones. By JAMES WARDROP, Esq. F.R.S. Ed.

This is a judicious improvement in the mode of treating broken limbs, which, from various causes, instead of uniting by callus, have only smooth surfaces by the absorption of the rough edges at the fracture. The cases are well described, but not easily explained without the accompanying plate.

Further Observations on the Diseases which affect the Synovial Membranes of Joints; by B. C. BRODIE, Esq. F.R.S. &c.

This is an ingenious dissertation, but, in our opinion, is calculated for a society, where opinions are discussed. Had the cases been minutely recorded, with no other remarks than such as naturally arose from each, and such as would lead the reader to the practical inferences, we should have thought the whole better suited to the plan of the society, and the class of readers for whom the Transactions are intended.

Case of Aneurism of the Glutæal Artery cured by tying the internal Iliac; by W. STEVENS, Esq.

We cannot make the same objection to this as to the last article, nor can it be necessary to detail the case in order to shew the merits of the author. If this is not the first time so bold an operation has been attempted, it is, at least, the first time it has succeeded. The following remarks, however, are selected to show how much, and with what advantage, the operation for aneurism may be simplified.

"In performing this operation, I used only one ligature, because I believe that one ligature is perfectly sufficient for any artery. When we expose the iliac or any other great vessel, it is necessary to separate the artery from its surrounding connexions, only for a small space: a space no larger than just sufficient to allow the insinuation of the fore-finger, behind it. With the point of this finger we raise the vessel, and examine it: with a small blunt or aneurism needle, pass a ligature behind the artery, draw it to the upper part of the vessel, where it is surrounded by its cellular substance, nourished by its vasa vasorum; and tie it there. When we tighten the ligature, the opposite surfaces of the internal coat are brought into immediate contact; the ligature wounds the internal coat and thus excites inflammation. When the internal surfaces are inflamed, and in contact, they adhere to each other, and then only is the patient out of danger.

"It often happens in aneurism, that the artery, even at a distance from the tumour, is so completely ossified, that it will not inflame, and consequently not adhere; the ligature soon comes away, and is followed by a secondary hemorrhage.

"Though

"Though we have a ligature beneath this part, it certainly can do no good; it cannot prevent the hemorrhage, as the bleeding is nearer to the heart.

"The vile practice of insulating a large portion of an artery, and then only half tying it; the use of the four ligatures, and other unhappy contrivances, have been very justly and very happily criticised by Mr. John Bell;—but even Mr. J. Bell uses one ligature too many: he, like Mr. Abernethy, and many surgeons of the present day, ties the artery with two ligatures; and cuts it across betwixt them.

"By placing the artery in the same situation, that it is in on the face of a stump, it was expected that secondary hemorrhage would occur as seldom after the operation for aneurism, as it does after amputation; the circumstances, however, are very different: in cases which require amputation, though every other part of the limb may be diseased, the arteries are generally healthy; and when properly tied they seldom bleed. In aneurism, though every other part of the system is healthy, the arteries are generally diseased. It is this diseased state, this premature old age of the arterial system, which is the cause of aneurism, and of the hemorrhage which is so frequent and so troublesome after the operation.

"If hemorrhage, after the operation for aneurism, is produced, not by the position of the artery, but by the diseased state of the arterial system, the double ligature can do no good. If an artery is diseased, the lower ligature cannot make it healthy: though it has retracted, it will not adhere; though we have two ligatures, they cannot prevent the secondary hemorrhage.

"The surgeon who uses the two ligatures gives himself unnecessary trouble, his patient unnecessary pain, and leaves three extraneous bodies in the wound, while one only is necessary; the lower ligature insulates a portion of the artery; this insulated part remains in the wound as a foreign substance, so does the lower ligature; in truth, this lower ligature can do no good by remaining in the wound; irritating and keeping it open, it does much mischief.

"Even in aneurism, the artery where we operate is sometimes healthy; when such an artery is properly tied, we have nothing to fear from secondary hemorrhage; its cavity is soon obliterated by adhesion; and the natural position of the vessel is perhaps more favourable for this process, than when the artery is retracted."*

"This was the only case of aneurism that I either saw or heard of during a residence of nearly four years in the West Indies. In

* "I express my disapprobation of the double ligature, because I believe it to be a bad practice, a practice that is radically wrong, and has nothing to recommend it but the respectable names of Mr. John Bell, Mr. Abernethy, Mr. A. Cooper, &c. No one can value these gentlemen more highly than I do; every surgeon must feel indebted to them for the good they have done to the profession. As an individual, I feel grateful to these gentlemen for much personal kindness."

St.

St. Croix, St. Vincent's, St. Kitt's, and some other islands, so seldom is it met with, that I know practitioners, who, during thirty years' extensive practice, have never seen a case of aneurism, stone, or any other disease produced by the deposition of calcareous matter."

Some questions follow concerning the cause of aneurism. As they throw no light on the subject, we shall not transcribe them, but leave the author in full possession of all the honour he may justly claim, for the boldness, success, and originality of his operation.

Practical Observations on Necrosis of the Tibia; illustrated with Cases, and a Copper-Plate. To which is added, a Defence of a Tract, entitled, "Description of an Affection of the Tibia induced by Fever," &c. By THOMAS WHATELY, Member of the Royal College of Surgeons in London. 8vo. pp. 130. Callow, 1815.

THE author, some years ago, published an account of an affection of the Tibia after fever, which had escaped the observation of the profession as distinguished from necrosis. The characteristic excellence of Mr. Whately's writings, is a sound exposition of plain practical facts; and his former pamphlet having led his mind towards the subject of Necrosis, he has, in the present little work, given a good history of the disease and its treatment after his own manner. Some remarks also, which his former publication drew from the reviewers, have contributed to keep the subject on the mind of the author, and have been, perhaps, remotely the cause of the present book; if so, neither he nor the public will regret them. The former part of the work consists of a history of the approach and early symptoms of Necrosis, which are detailed in the following passage.

"In those cases of Necrosis on the Tibia, which have fallen under my own observation, pain has suddenly seized the bone, without any previous indisposition whatever; (a slight injury to the part has, however, in several instances been sustained.) The pain was soon followed by an increase of heat, and swelling of the limb, attended with violent inflammation. All these symptoms have rapidly increased, and to a very alarming degree, almost always confining the patient to bed, and terminating at length, in about a fortnight, or three weeks, in a large deep-seated abscess in the course of the Tibia; which has either burst, or been discharged of its contents by a lancet. This has usually been followed by four or five others, or more, at different periods afterwards; all of them for the most part situated in the course of the Tibia, or connected by sinuses with it.

"An attack of Necrosis on the Tibia is therefore an attack of inflammation, followed by suppuration, and producing certain effects

effects upon the bone. It will be of use to explain the action of this inflammation, and its consequences, as I do not think these points are quite so well understood as they ought to be. By an attention to the history of cases of Necrosis Tibiæ faithfully related, it would appear, that the inflammation first attacks the substance of the bone; and as in that of the soft parts, where we can more accurately trace its progress, is unquestionably more or less violent, or to a greater or less extent, in different cases; that is to say, the whole, or a part only of the Tibia, may be affected by it; thereby producing considerable variation in its consequences. It appears, however, that in the greater number of cases, the disease extends over the whole of the Tibia. It may seem strange to some, that a bone so hard and solid, which appears to have so few red blood vessels in its composition in a natural state, should be the subject of high inflammation. The fact however is certain; and it will be clearly shewn, that the whole of this bone is frequently destroyed by its action, and removed from its place in the system in a very short time."

The treatment of the author is chiefly peculiar in this, that he recommends the early extraction of the dead portion of bone, while the new osseous matter is so soft as to allow of this operation being performed without great difficulty.

"As soon as he has recovered sufficient strength, *(from the preceding inflammation,)* the pieces of bone should be extracted by the forceps; enlarging the openings where it may be necessary by sponge tent; after which, a complete cure will ensue. But, if any of the latter effects take place, the utmost attention should be paid, and, as early as possible, to the removal of the dead bones. This is, however, a nice, and often a difficult task, and will, in many instances, require skill and manual dexterity, as well as length of time to accomplish. As soon as any portion of the bone, greater or less, is found to be completely separated, which in most cases is known by its becoming moveable, it should be extracted, if the patient's strength will admit of it, and it can be done with safety. There are two principal advantages attending this mode of procedure, viz. the new or adventitious bone will be softer, and therefore more easily acted upon by any instrument that may be necessary, should it occasion any impediment to the removal of a sequestra; and, at this period of the complaint, it will embrace or hem in the sequestra in a less complete and firm manner. The irritation occasioned to the constitution as well as to the part, by the presence of a foreign body, will likewise be the more speedily removed, and the recovery of course much expedited. When the whole cylinder of the dead Tibia becomes surrounded by the new bone, forming a complete sequestra, and no portion of it is protruded through a vacancy in the new cylinder, more skill and address will be required to remove it, by an operation, than in any of the other varieties of this disease."

The latter part of the book contains a good parallel of the

two complaints which have been the subjects of the author's consideration, and the material circumstances, history, and treatment, in which they differ from each other. In Necrosis the author thinks that we expect, we have trusted, too much to nature for its cure. "Too much is in general left to nature;" and, although we should be apt to combat this error as one of general application, we believe the interference and decisive operation of art is necessary to remove the morbid exfoliation. The mode of doing this in Necrosis is by the application of mechanical force, according to the nature of the case, (for no two cases are alike,) and, in the affection of bone after fever, Mr. W. advises the use of caustic. The time which is required for the separation of bone destroyed by kali purum, is about three weeks or a month, and the small piece of dead and detached bone will be seen under the sloughed portion. We have had an opportunity of witnessing the correctness of these remarks of the author, as well on this as on other parts of his subject; and we take our leave of this useful essay, which further contains many cases and drawings in illustration of the doctrine which he inculcates, by the following quotation of one of the former.

"Case II.—Elizabeth King, No. 31, Red Cross-street, Union-street, Borough, aged thirteen years and a half, having had no previous fever, or indisposition of any kind, was seized in August, 1807, with violent pain in the right leg, extending in the course of the Tibia, from the knee to the foot. It swelled and inflamed the same day; she passed a very bad night; and the following day all these symptoms were much more violent. In about ten days, suppuration took place; the abscess, situated about the middle of the Tibia, was immediately opened, and about a quarter of a pint of matter discharged. Even after this, the pain, inflammation, and swelling, continued very violent, and a large quantity of matter was daily discharged. She continued nearly in this state about a month longer, when the violence of these symptoms in some degree abated. During all this time she was confined entirely to her bed, and had very little remission from pain night or day. Soon after this period, another abscess formed in the course of the Tibia, at some distance from the former, which burst, and discharged a large quantity of matter. She was confined to her bed for three months longer, during which time three more abscesses formed along the Tibia; two of which were opened, and the other burst. These abscesses were situated in different parts of the leg, from a little below the knee nearly to the inner ancle. All the violent symptoms now gradually abated, and in a short time the common integument, covering the Tibia at its upper part, ulcerated away; by which a considerable portion of that bone became exposed. About two months afterwards, being

being about six from the attack, the girl was in a very deplorable situation; being extremely weak and emaciated, unable to put her foot to the ground, and walking with great difficulty with the assistance of crutches. Almost the entire cylinder of the Tibia, to the extent of four or five inches from the knee, became elevated from its natural situation; apparently by the pressure of the new cylinder on its posterior and lateral sides, which daily increased in hardness. At this period she was advised, by a surgeon of eminence, to have her leg amputated, but to this she would not consent. Six months after this, I saw her. She was then nearly in the situation I have just described, but the Tibia had become still more elevated, especially at its upper part, and so much so, that nearly one half of the entire substance of it, could be taken hold of by a finger and thumb. The elevation of the bone above the skin, was so great, that I attempted to divide it with a common saw, and, without wounding the skin, penetrated to some depth; after this, I endeavoured to break it, but this could not be effected. I then determined on its extraction by a pair of strong forceps, as these could readily be applied without any previous removal of the new bone or integument. The bone appeared to be strongly confined; by using, however, some force, I could perceive, that it was loose; and, on extracting forcibly, and yet slowly, (fearing least a large blood vessel might be lacerated) I got it out in a few minutes. It was seven inches and a half in length, and its upper part, was a portion of the entire cylinder of the Tibia. The saw had penetrated to the depth of three quarters of an inch through this part. The patient lost by this operation about four ounces of blood; and the cavity left by the extraction of the bone was extremely large. An amendment in every respect soon followed, but several lesser pieces of bone were afterwards extracted. She gradually recovered her health, and the use of her limb; and in a few months laid aside her crutches. Her constitution, however, was weakly and scrophulous: There were also several other ulcers in different parts of her leg, from whence the other bones were extracted. These, at times, as well as the large wound, ulcerated, and spread wider. But, as her circumstances did not admit of a removal into the country, nearly two years elapsed, before she was completely cured. A long time, however, before a complete cure took place, she had the perfect use of her leg; and she is now quite well, and very stout and strong.

"In this case, the whole of the Tibia was destroyed by the inflammation."

MEDICAL AND PHILOSOPHICAL INTELLIGENCE.

To the Editors of the London Medical and Physical Journal.

Edinburgh Medical Hall, May 22, 1815.

GENTLEMEN,

You will confer a favour on the Royal Medical Society of Edinburgh, by inserting in your valuable publication the following paragraph:—

The Royal Medical Society propose, as the subject of the Prize Essay for 1816, the following question:

"What changes of composition does the process of digestion in quadrupeds produce on earths, oxides, and earthy, alkaline, and metallic salts?"

A set of books, or a medal of five guineas value, shall be given annually to the author of the best Dissertation on an experimental subject proposed by the Society, for which all the members, honorary, extraordinary, and ordinary, shall alone be invited as candidates.

The Dissertations are to be written in English, French, or Latin, and to be delivered to the secretary on or before the 1st of December of the succeeding year to that in which the subjects are proposed; and the adjudication of the prize shall take place in the last week of February following.

To each Dissertation shall be prefixed a motto; and this motto is to be written on the outside of a sealed packet, containing the name and address of the author. No dissertation will be received with the author's name affixed; and all dissertations, except the successful one, will be returned, if desired, with the sealed packet unopened.

Your most obedient servant,

NICOLSON BAIN, Secretary.

Preternatural Labour.—Professor W. C. BOWEN, of Providence, in a private letter to Dr. W. Channing, states the following case: "I was called to a woman who had been in labour between three and four days, and was nearly exhausted when I saw her. One arm of the child had presented, and *had been cut off*, by the attending surgeon before I was called. On examining the woman, I found the vagina completely filled, and the mutilated shoulder presenting at the external parts. With the crotchet, I first separated the shoulder blade, dislodged the contents of the thorax and abdomen, and then dislocated one of the dorsal vertebræ. All difficulty being now overcome, I easily turned and delivered the child. As this patient had great tension and tenderness of the abdomen and of the external parts when I first saw her, I was very apprehensive that extensive inflammation and sloughing would follow, but fortunately this has not been the case; the woman is in a fair way of recovery, and it is a fortnight since she was delivered." In another

letter of a later date, in answer to some inquiries I made in my answer to his first, Dr. B. observes, "In the case lately described to you," viz. the above, "the left arm of the child presented, the head was towards the right side of the pelvis, and the breech and feet of course to the left, and towards the fundus uteri. It was physically impossible that *spontaneously evolution* could have taken place in this case, the child was so completely jammed into the vagina, and the uterus rigidly contracted upon it."

Dr. Denman, in his Aphorisms on the use of the Forceps and Vectis, treats concerning cases similar to the one above mentioned; but neither he nor any other author I have consulted, recommends the practice followed previous to Dr. Bowen's being called in for consultation. Hoornius recommends indeed, in such a case, to separate the head from the trunk, then turn the child, extract it, and then bring away the head. Heister's comment on this practice is full of cautions. We are to be certain that the child is dead, or that the mother is in the greatest danger from the longer continuance of ineffectual labour. We are advised by Dr. Denman, in the work above quoted, in a case similar to that just related, (viz.) where the arm and shoulder are completely jammed in the vagina, and the uterus firmly contracted on its contents, to wait for what he terms a spontaneous evolution of the child, by means of which the arm will be drawn up from the vagina, and the child be so altered in its presentation, as that the breech shall be first expelled.—*New England Journal.*

Loss of the lower Jaw.—In one of the late naval battles, a sailor had great part of the inferior jaw-bone carried off by a grape shot. The appearance of this poor man was frightful. His face was swelled, mouth wide open, and great qualities of saliva pouring out of it. In about 14 days, the shattered bones separated from the flesh, the swelling subsided, the mouth closed, so as to allow the patient to swallow and articulate. This favourable termination is to be attributed to the singular preservation of the under lip.—*New England Journal.*

New Method of Treating the Itch.—M. Ranque, Physician at Orleans, in France, has published a small book on the treatment of the itch, in which he proposes to lay aside the use of ointments and sulphureous medicines. His objections to the common mode are founded on the numerous ill consequences attributed to it by himself and other French physicians of reputation. He adopts that opinion of the nature of this disease, which has of late years become prevalent, viz.:—That it is produced by the propagation of an insect, *pediculus scabici.* This insect, he thinks, may penetrate to the internal parts of the body, and attack the great viscera. The application of powerful ointments to destroy this animal is supposed to interrupt the function of the skin and materially to impair its healthy action. M. Ranque states that, in the space of three years, three hundred Italians perished in the Hotel Dieu of Orleans,

solely from the effects of the itch. His medicine is prepared in the following manner:

Take, of powder of the grains of staphisagre, half an ounce, extract of the common poppy two drachms, boiled in a quart of water three-quarters of an hour; do not express it; preserve it for use, and strain it when employed. Sometimes, ten grains of the muriate of mercury are added. This decoction is applied warm in winter. It is to be rubbed thoroughly over the body three or four times a day, with a coarse linen rag, in such way as to break the pimples. It requires to be repeated from six to twelve days, more rarely. The author states that Mr. Cornyart, Larrey, Richerand, and others, think well of this method.

Mr. WADD has lately opened the head of an epileptic subject, and found the left hemisphere of the brain entirely destroyed by suppuration. The patient, in the latter part of his life, was blind in the right eye. He retained his intellects to the last, and could sometimes express his wishes.

The operation for the popliteal aneurism has been performed in Dublin with a simplicity which does honour to the surgeon (Mr. CRAMPTON), and confirms Mr. Jones's experiments. A ligature was made, without incision, and withdrawn in a short time; in consequence of which the artery became obliterated, and the wound healed by the first intent.

Mr. CARPUE has succeeded a second time in his Taliacotian operation, conducted on the Asiatic plan, greatly improved. The subjects were both military, and their improved physiognomy has been sufficient to attract the notice of the Commander-in-Chief, and even of the Prince Regent, who has appointed Mr. C. his Surgeon Extraordinary.

The number of medical students at present in London is smaller than for several summers past.

Mr. ASTLEY COOPER is preparing for re-publication his book on the Anatomy and Surgical Treatment of Hernia.

Mr. WADD is preparing a most interesting work on Diseases of the Urinary Organs and Genitals. It is illustrated with engravings from his own drawings, and, if we are rightly informed, he has undertaken the etching also. If so, we may expect a degree of accuracy rarely to be met with in works of this description. The first part, on the Diseases of the Prostate Gland and Bladder, is already in the press.

Mr. CARPUE will resume his Lectures on Anatomy and Surgery, as usual, the beginning of June, at his house in Dean-street, Soho.

Dr. MERRIMAN's Lectures on Midwifery and the Diseases of Women and Children, will recommence on Monday, June 5th, at the Middlesex Hospital.

LONDON

LONDON PRICES OF DRUGS, May 24, 1815.

	£	s.	d.	£	s.	d.	per
Aloes Barbadoes, from	22	0	0 to 0	0	0	0	C.
—— Cape	6	10	0 .. 7	0	0	0	—
—— Succotrine	23	0	0 .. 0	0	0	0	—
—— Epatic or Hepatic	12	0	0 .. 20	0	0	0	—
Angelica Root	8	0	0 .. 8	10	0	0	—
Alkanet Root	8	10	0 .. 0	0	0	0	—
Antimony Crude	2	15	0 .. 3	3	0	0	—
Aqua Fortis	0	0	0 .. 0	1	1	0	lb.
Arrow Root, fine	0	2	0 .. 0	3	6	0	—
—— ordinary	0	0	0 .. 0	1	3	0	—
Arsenic, Red	4	4	0 .. 4	10	0	0	C.
—— White	2	16	0 .. 0	0	0	0	—
Balsam Capivi	0	5	0 .. 0	5	0	0	lb.
—— Peru	1	0	0 .. 1	1	0	0	—
—— Tolu	0	14	0 .. 0	15	0	0	—
Bark Jesuits', Com.	0	3	6 .. 0	4	0	0	—
—— Second	0	6	0 .. 0	7	0	0	—
—— Quil'or best	0	8	0 .. 0	10	0	0	—
—— Red	0	8	8 .. 0	9	0	0	—
—— Yellow	0	2	0 .. 0	2	2	0	—
Borax, refined	Duty 1		mont.				
—— English	0	2	8 .. 0	3	0	0	lb.
—— unrefined or Tinc.	6	10	0 .. 7	15	0	0	C.
Camphire, refined	0	6	0 .. 0	6	9	0	lb.
—— unrefined	16	0	0 .. 17	10	0	0	C.
Cantharides	0	14	0 .. 0	0	0	0	lb.
Cardamoms (best)	0	6	6 .. 0	7	6	0	—
Cassia Buds	32	0	0 .. 0	0	0	0	C.
—— Fistula, W.I.	5	5	0	In bond			—
—— Lignea	42	0	to 45	0	0	0	—
Castoreum Americum	2	10	0 .. 3	0	0	0	lb.
—— Russia	11	11	0 .. 0	0	0	0	—
Castor Oil, per bottle 1½ lb.	0	3	0 .. 0	0	0	0	—
Cocculus Indicus	0	0	0 .. 0	0	0	0	C.
Colocynth Turkey	0	6	0 .. 0	0	0	0	lb.
Columbo Root	0	1	0 .. 0	0	0	0	C.
Cream of Tartar	6	0	0 .. 6	10	0	0	—
Galangal East-India	uncertain			0	0	0	C.
Gentian Root	3	10	0 .. 3	15	0	0	—
Ginseng	[illegible]						
Grains of Guinea	6	10	0 .. 0	0	0	0	C.
Gum Ammo. Drop	50	0	0 .. 0	0	0	0	—
—— Lump	5	0	0 .. 7	0	0	0	—
—— Arabic	3	10	0 .. 7	10	0	0	—
—— Arabic, E. I.	2	0	0 .. 4	0	0	0	—
—— Turkey, Fine	8	15	0 .. 10	10	0	0	—
—— Barbary	15	0	0 .. 0	0	0	0	—
—— Assafœtida	10	0	0 .. 15	0	0	0	—
—— Benjamin	15	0	0 .. 60	0	0	0	—
—— Gamboge	28	0	0 .. 30	0	0	0	—
—— Copal, scraped	0	5	0 .. 0	6	0	0	lb.
—— Galbanum	30	0	0 .. 0	0	0	0	C.

	£	s.	d.	£	s.	d.	per
Gum Guaiacum, from	0	2	6 to 0	3	0	0	lb.
—— Myrrh	15	0	0 .. 18	0	0	0	C.
—— Olibanum	2	0	0 .. 11	0	0	0	—
—— Opoponax	80	0	0 .. 0	0	0	0	—
—— Sandrac	2	0	0 .. 3	5	0	0	—
—— Senegal	6	15	0 .. 7	0	0	0	—
—— Tragacanth	27	0	0 .. 27	10	0	0	—
Jalap	0	5	6 .. 0	5	9	0	lb.
Ipecacuanha	0	14	6 .. 0	15	0	0	—
Isinglass Book	0	9	0 .. 0	10	0	0	—
—— Leaf	0	7	10 .. 0	8	6	0	—
—— Long Staple	0	9	0 .. 0	10	0	0	—
—— Short Staple	0	8	0 .. 0	8	6	0	—
Manna Flake	0	5	10 .. 0	6	6	0	—
—— Sicily in Sorts	0	0	0 .. 0	0	0	0	—
Musk China	0	15	0 .. 0	16	0	0	oz.
Nux Vomica	2	0	0 .. 2	2	0	0	C.
Oil of Vitriol	0	0	3½	0	0	4	lb.
Opium, East-India	none			0	0	0	—
—— Turkey	1	4	6 .. 0	0	0	0	—
Pink Root	0	4	0 .. 0	4	6	0	—
Quicksilver	0	6	0 .. 0	6	4	0	—
Rhubarb, East-India	0	9	0 .. 0	18	0	0	—
—— Russia	0	18	0 .. 1	0	0	0	—
Saffron, Spanish	2	12	0 .. 2	16	0	0	—
—— French	1	18	0 .. 2	0	0	0	—
Sago	0	15	0 .. 8	10	0	0	C.
Sal Ammoniac	10	10	0 .. 14	0	0	0	—
Sarsaparilla	0	2	3 .. 0	4	9	0	lb.
Sassafras	7	10	0 .. 8	0	0	0	T.
Scammony, Aleppo	1	14	0 .. 1	15	0	0	lb.
—— Smyrna	0	18	0 .. 0	0	0	0	—
Senna, Alexandria	0	1	3 .. 0	1	6	0	—
Seeds, Anni Alkanet	4	15	0 .. 5	0	0	0	C.
—— Coriander English	0	14	0 .. 0	0	0	0	—
—— Cummin	5	1	0 .. 0	0	0	0	—
—— Fenugreek	1	15	0 .. 0	0	0	0	—
Shellack	9	10	0 .. 10	15	0	0	—
Stick lack	3	10	0 .. 7	0	0	0	—
Sarsaparilla	9	10	0 .. 0	0	0	0	lb.
Soap, Castile or Spanish	9	0	0 .. 10	0	0	0	C.
Spermaceti, refined	0	2	2 .. 0	0	0	0	lb.
Tamarinds, West-India	9	0	0 .. 10	0	0	0	C.
Tapioca, Lisbon	0	0	9 .. 0	1	0	0	lb.
Turmeric, Bengal	4	10	0 .. 4	15	0	0	C.
—— China	6	10	0 .. 7	0	0	0	—
—— West-India	3	10	0 .. 4	4	0	0	—
Verdigris, Wet	0	3	6 .. 0	0	0	0	lb.
—— Dry	0	7	0 .. 0	7	6	0	—
—— Crystallised	0	9	0 .. 0	9	6	0	—
Vitriol, Roman	0	0	7 .. 0	0	0	0	—
—— Foreign white	2	10	0 .. 0	0	0	0	C.

Price of Malt per Gross.—8 ox. 7os.—6 ox. 58s.—4 ox. 47s.—3 ox. 45s.—2 ox. 36s. 4d. ox. 30s. —Ioss, 24s.

Lisbon Leeches, 30s. per hundred.—Brue Frenchchalk, 30s.

Essential Salt of Lemons, 1s. 6d. per ounce.

METEOROLOGICAL

METEOROLOGICAL REGISTER.

From April the 25th, to May the 25th, 1815.

Kept by C. BLUNT, Philosophical Instrument Maker, No. 38, Tavistock-Street, Covent-Garden.

Month	Day	Wind.	Barometrical Pressure. Max.	Min.	Mean.	Temperature. Max.	Min.	Mean.	
	26	N	30·06	29·93	30·082	55	36	45·5	Rain
	27	NW	30·08	29·97	29·99	57	37	47	Fair
	28	NW	29·99	29·86	29·887	57	38	47·5	Fair
	29	W.	29·70	29·60	29·648	59	39	49	Fair
	30	W	29·67	29·67	29·67	62	40	51	Fair
◑	1	NW	29·73	29·70	29·722	65	45	55	Fair.
	2	NNW	29·78	29·74	29·755	68	50	59	Fair
	3	W	29·73	29·69	29·71	70	51	60·5	Fair
	4	SW	29·75	29·75	29·735	70	50	60	Fair
	5	SW	29·74	29·72	29·73	70	52	61	Rain
	6	S	29·75	29·75	29·75	74	50	62	Rain
	7	S	29·74	29·74	29·74	75	51	63	Fair
	8	SE	29·73	29·70	29·72	72	49	60·5	Fair.
●	9	SE	29·94	29·88	29·92	75	51	63	Fair.
	10	S	29·94	29·90	29·922	76	50	63	Fair
	11	S	29·83	29·66	29·747	77	55	66	Fair, Thunder Storm 4 p.m.
	12	SW	29·74	29·67	29·697	71	50	60·5	Rain
	13	W.	29·76	29·71	29·722	71	48	59·5	Rain
	14	W by S	29·80	29·80	29·80	70	48	59	Rain
	15	SW	29·82	29·82	29·82	70	50	60	Fair
◐	16	SW	30·15	29·99	30·087	75	51	63	Fair
	17	W	30·28	30·25	30·26	73	50	61·5	Fair
	18	W	30·23	30·17	30·205	70	52	61	Fair
	19	W	30·16	29·94	30·045	69	52	60·5	Fair
	20	W by N	29·82	29·66	29·722	66	47	56·5	Fair
	21	NW	29·71	29·71	29·71	65	50	57·5	Rain
	22	NW	29·83	29·91	29·873	61	50	55·5	Fair
○	23	W	29·91	29·77	29·83	61	49	55	Rain
	24	W.	29·91	29·84	29·87	64	50	57	Rain
	25	W	30·06	30·05	30·055	65	50	57·5	Fair

RESULTS.

Mean barometrical pressure of the month	29·845	Mean temperature of the month	57·9 deg.
Maximum 30·28	wind at W	Maximum 77,	wind at S
Minimum 29·60	—— W	Minimum 36,	—— N

Scale exhibiting the prevailing Winds during the Month.

N	NE	E	SE	S	SW	W	NW
1	0	0	2	4	5	12	6

	Mean barometrical pressure.	Mean temperature.
From the last quarter on the 1st May, to the new moon on the 9th	29·732	50·1
—— new moon on the 9th, to the first quarter on the 16th	29·804	61·5
—— first quarter on the 16th, to the new moon on the 23d	29·086	59·3

REPORT

REPORT OF DISEASES.

The diseases still continue to assume an inflammatory form. Those who have passed the late mild winter with an alleviation of their customary pulmonary symptoms, have, many of them, in the spring, been assailed with hæmoptysis, or acute inflammation. The former has, for the most part, yielded to purgative medicines, in some instances blood-letting has been added. None of them seem to threaten mischief excepting a single instance of a young female, native of a warmer climate, who found all her complaints alleviated during the winter, and who, since the return of spring, has, besides hæmoptysis, a quick pulse, flushed cheek, short cough, with hurried respiration. Some embarrassments, in consequence of her new situation in a foreign country, have probably exasperated all these symptoms, which, however, in an interesting young female, cannot be contemplated without the anxiety of her friends.

A case of epileptic fits has occurred in a stout lad, about the age of puberty: it has given way to strong and repeated purgatives.

Several instances of apoplexy, and consequent paralysis, in their various stages and forms, have occurred; some of the former with symptoms of relapse. All these have been relieved with venesection or cupping. Cupping has been used with great freedom, and almost always with advantage. The general remark, that blood taken in this way induces less debility than when taken from the vein, is daily proved, and may probably be explained by reflecting that a considerable part of the fluid may consist of different juices, as well as blood, which may account for the imperfect coagulation. The other cases are much assisted by frequent purgatives, which the patients bear extremely well, whilst the appetite remains good.

Rheumatism has almost disappeared. Even the occurrence during the temporary cold weather was inconsiderable, and easily managed.

A case of diabetes mellitus has occurred in a youth about the age of puberty. It was attended with symptoms bordering on idiotism, and so refractory did the patient prove, that little could be learned concerning the effect of, or even the manner in which the prescribed remedies were taken. The confining him to animal food was, however, accomplished long enough to produce a change in the properties, though not in the quantity, of the urine.

Several cases of typhus mitior have occurred, without any dangerous symptoms: congestion about the head, and profuse perspiration, without proportionate relief, have been the principal symptoms.

MONTHLY CATALOGUE OF MEDICAL BOOKS.

THE Morbid Anatomy of the Liver:—Part 2, on the Varieties of the Tubera Diffusa. By J. R. Farre, M.D. 4to.—Longman and Co.

The History of the Small-pox. By James Moore. 8vo.—Longman and Co.

Memoirs of Military Surgery. By D. J. Larrey, M.D. Abridged and translated from the French; by John Weller, Surgeon of the Royal Navy. Part 1. 8vo.—Cox and Son.

A Practical Inquiry into Disordered Respiration, distinguishing the Species of Convulsive Asthma, their Causes, and Indications of Cure. By Robert Bree, M.D. F.R.S. Fellow of the Royal College of Physicians. The fifth edition, corrected and improved, with additional observations. 8vo.—Callow.

Reflections on Fever, intended to point out the Principles upon which a systematic and useful Method of Treatment might be established. By Robert Calvert, M.D. Physician to the Forces, &c. &c. &c. 8vo.—Callow.

Additional Reports on the Effects of a peculiar Regimen in Cases of Cancer, Scrofula, Consumption, Asthma, and other Chronic Diseases. By William Lamb, M.D. 8vo.—Mawman.

Researches on Pulmonary Phthisis. From the French of G. L. Bayle; by William Barrow, M.D. 8vo.—Longman and Co.

A View of the Relations of the Nervous System in Health and in Disease; containing Selections from a Dissertation to which was adjudged the Jacksonian Prize for the year 1813, with additional Illustrations and Remarks. By Daniel Pring, Member of the Royal College of Surgeons, London, and Surgeon at Bath. 8vo.—Callow.

NOTICES TO CORRESPONDENTS.

The Proprietors feel a due sense of gratitude to Dr. Vaughan for his last communication. As they have reason to fear the industry of malice as well as envy is directed to oppose their increased exertions, they will be thankful for information from any other quarter in which the circulation of a different publication has been attempted for their own. A fair competition is always desirable, and is the best security the public can expect; but all other arts are disgraceful to fair trade, and still more to professional dignity. Delicacy prevents their saying more; but there are readers who will understand the last hint.

Our correspondent in America advises us that he has forwarded the American Journals by a vessel bound to Liverpool. Our letters are by a private hand; but, from some delay at the Custom House, the packet has not arrived. We promise ourselves much information from it, as our trans-atlantic brethren have been very busy in repeating experiments reported in the transactions of the various societies of Great Britain.

Communications are received from Drs. Kinglake, Walker, Brown, and various anonymous Correspondents; and several new publications from their respective authors. These shall be attended to in their order.

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